

SBML Model Report

Model name: “Capuani2015 - Binding of Cbl and Grb2 to EGFR (Early Activation Model - EAM)”



May 5, 2016

1 General Overview

This is a document in SBML Level 2 Version 4 format. This model was created by the following two authors: Fabrizio Capuani¹ and Alastair Hume² at February tenth 2016 at 2:20 p. m. and last time modified at April 19th 2016 at 9:55 p. m. Table 1 provides an overview of the quantities of all components of this model.

Table 1: Number of components in this model, which are described in the following sections.

Element	Quantity	Element	Quantity
compartment types	0	compartments	1
species types	0	species	218
events	0	constraints	0
reactions	1490	function definitions	0
global parameters	43	unit definitions	0
rules	25	initial assignments	0

2 Unit Definitions

This is an overview of five unit definitions which are all predefined by SBML and not mentioned in the model.

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2.1 Unit substance

Notes Mole is the predefined SBML unit for substance.

Definition mol

2.2 Unit volume

Notes Litre is the predefined SBML unit for volume.

Definition l

2.3 Unit area

Notes Square metre is the predefined SBML unit for area since SBML Level 2 Version 1.

Definition m²

2.4 Unit length

Notes Metre is the predefined SBML unit for length since SBML Level 2 Version 1.

Definition m

2.5 Unit time

Notes Second is the predefined SBML unit for time.

Definition s

3 Compartment

This model contains one compartment.

Table 2: Properties of all compartments.

Id	Name	SBO	Spatial Dimensions	Size	Unit	Constant	Outside
cell	cell		3	1	litre	☒	

3.1 Compartment cell

This is a three dimensional compartment with a constant size of one litre.

Name cell

4 Species

This model contains 218 species. Section 8 provides further details and the derived rates of change of each species.

Table 3: Properties of each species.

Id	Name	Compartment	Derived Unit	Constant	Boundary Condition
L	L	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Cbl	Cbl	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Grb2	Grb2	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
CG	CG	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
PY	PY	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Ub	Ub	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
PYNorm	PYNorm	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
UbNorm	UbNorm	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
SumM	SumM	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
SumML	SumML	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc00UU	Rc00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc10UU	Rc10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc10CU	Rc10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc10LU	Rc10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc01UU	Rc01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc01UG	Rc01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc01UL	Rc01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc11UU	Rc11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc11CU	Rc11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc11LU	Rc11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc11UG	Rc11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
Rc11UL	Rc11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
Rc11CG	Rc11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc11CC	Rc11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc11LG	Rc11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc02UU	Rc02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc02UG	Rc02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc02UL	Rc02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12UU	Rc12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12CU	Rc12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12LU	Rc12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12UG	Rc12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12UL	Rc12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12CG	Rc12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12CC	Rc12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Rc12LG	Rc12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL00UU	RcL00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL10UU	RcL10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL10CU	RcL10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL10LU	RcL10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL01UU	RcL01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL01UG	RcL01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL01UL	RcL01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11UU	RcL11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11CU	RcL11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11LU	RcL11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11UG	RcL11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11UL	RcL11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11CG	RcL11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
RcL11CC	RcL11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL11LG	RcL11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL02UU	RcL02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL02UG	RcL02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL02UL	RcL02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12UU	RcL12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12CU	RcL12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12LU	RcL12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12UG	RcL12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12UL	RcL12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12CG	RcL12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12CC	RcL12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RcL12LG	RcL12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R00UU	R00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R10UU	R10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R10CU	R10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R10LU	R10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R01UU	R01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R01UG	R01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R01UL	R01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11UU	R11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11CU	R11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11LU	R11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11UG	R11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11UL	R11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11CG	R11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R11CC	R11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
R11LG	R11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R02UU	R02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R02UG	R02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R02UL	R02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12UU	R12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12CU	R12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12LU	R12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12UG	R12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12UL	R12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12CG	R12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12CC	R12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
R12LG	R12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL00UU	RL00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL10UU	RL10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL10CU	RL10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL10LU	RL10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL01UU	RL01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL01UG	RL01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL01UL	RL01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11UU	RL11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11CU	RL11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11LU	RL11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11UG	RL11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11UL	RL11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11CG	RL11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11CC	RL11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL11LG	RL11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
RL02UU	RL02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL02UG	RL02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL02UL	RL02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12UU	RL12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12CU	RL12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12LU	RL12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12UG	RL12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12UL	RL12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12CG	RL12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12CC	RL12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
RL12LG	RL12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di00UU	Di00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di10UU	Di10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di10CU	Di10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di10LU	Di10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di01UU	Di01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di01UG	Di01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di01UL	Di01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11UU	Di11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11CU	Di11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11LU	Di11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11UG	Di11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11UL	Di11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11CG	Di11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11CC	Di11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di11LG	Di11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di02UU	Di02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
Di02UG	Di02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di02UL	Di02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12UU	Di12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12CU	Di12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12LU	Di12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12UG	Di12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12UL	Di12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12CG	Di12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12CC	Di12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Di12LG	Di12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da00UU	Da00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da10UU	Da10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da10CU	Da10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da10LU	Da10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da01UU	Da01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da01UG	Da01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da01UL	Da01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11UU	Da11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11CU	Da11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11LU	Da11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11UG	Da11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11UL	Da11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11CG	Da11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11CC	Da11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da11LG	Da11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da02UU	Da02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da02UG	Da02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
Da02UL	Da02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12UU	Da12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12CU	Da12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12LU	Da12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12UG	Da12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12UL	Da12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12CG	Da12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12CC	Da12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
Da12LG	Da12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL00UU	DiL00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL10UU	DiL10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL10CU	DiL10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL10LU	DiL10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL01UU	DiL01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL01UG	DiL01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL01UL	DiL01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11UU	DiL11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11CU	DiL11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11LU	DiL11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11UG	DiL11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11UL	DiL11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11CG	DiL11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11CC	DiL11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL11LG	DiL11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL02UU	DiL02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL02UG	DiL02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL02UL	DiL02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
DiL12UU	DiL12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12CU	DiL12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12LU	DiL12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12UG	DiL12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12UL	DiL12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12CG	DiL12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12CC	DiL12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DiL12LG	DiL12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL00UU	DaL00UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL10UU	DaL10UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL10CU	DaL10CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL10LU	DaL10LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL01UU	DaL01UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL01UG	DaL01UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL01UL	DaL01UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11UU	DaL11UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11CU	DaL11CU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11LU	DaL11LU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11UG	DaL11UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11UL	DaL11UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11CG	DaL11CG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11CC	DaL11CC	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL11LG	DaL11LG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL02UU	DaL02UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL02UG	DaL02UG	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL02UL	DaL02UL	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐
DaL12UU	DaL12UU	cell	$\text{mol} \cdot \text{l}^{-1}$	☐	☐

Id	Name	Compartment	Derived Unit	Constant	Boundary Condi- tion
DaL12CU	DaL12CU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
DaL12LU	DaL12LU	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
DaL12UG	DaL12UG	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
DaL12UL	DaL12UL	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
DaL12CG	DaL12CG	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
DaL12CC	DaL12CC	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$
DaL12LG	DaL12LG	cell	$\text{mol} \cdot \text{l}^{-1}$	$\square$	$\square$

5 Parameters

This model contains 43 global parameters.

Table 4: Properties of each parameter.

Id	Name	SBO	Value	Unit	Constant
Ke1	Ke1		0.000		☐
K45P	K45P		0.000		☐
KcgP	KcgP		0.000		☐
ku	ku		0.000		☐
ko	ko		0.000		☐
k1b	k1b		0.000		☐
k1o	k1o		0.000		☐
kptp68	kptp68		0.000		☐
kkin68	kkin68		0.000		☐
kb45	kb45		0.000		☐
ku45M	ku45M		0.000		☐
kb45P	kb45P		0.000		☐
kb68	kb68		0.000		☐
ku68	ku68		0.000		☐
kb68P	kb68P		0.000		☐
ku68M	ku68M		0.000		☐
kbcg	kbcg		0.000		☐
kbcgP	kbcgP		0.000		☐
kucgM	kucgM		0.000		☐
Ltot	Ltot		0.000		☒
RT	RT		0.830		☒
CblT	CblT		0.015		☒
Grb2T	Grb2T		3.320		☒
K	K		3.386		☒
Ke	Ke		32.000		☒
K1	K1		52.000		☒
kptp	kptp		0.016		☒
kkin	kkin		0.290		☒
K45	K45		0.201		☒
Kcg	Kcg		0.006		☒
ku45	ku45		0.001		☒
kucg	kucg		0.309		☒
kb	kb		5.000		☒
kc	kc		10.000		☒
kuDIM	kuDIM		1.055		☒
kbDIM	kbDIM		200.000		☒
k1u	k1u		0.150		☒

Id	Name	SBO	Value	Unit	Constant
k1c	k1c		10.000		☒
PYMax	PYMax		2.345		☒
UbMax	UbMax		0.014		☒
floc	floc		20000.000		☒
CblWT	CblWT		0.015		☒
CblFactor	CblFactor		1.000		☒

6 Rules

This is an overview of 25 rules.

6.1 Rule $Ke1$

Rule $Ke1$ is an assignment rule for parameter $Ke1$:

$$Ke1 = \frac{K \cdot Ke}{K1} \quad (1)$$

6.2 Rule $K45P$

Rule $K45P$ is an assignment rule for parameter $K45P$:

$$K45P = \frac{K45}{floc} \quad (2)$$

6.3 Rule $KcgP$

Rule $KcgP$ is an assignment rule for parameter $KcgP$:

$$KcgP = \frac{Kcg}{floc} \quad (3)$$

6.4 Rule ku

Rule ku is an assignment rule for parameter ku :

$$ku = kb \cdot K \quad (4)$$

6.5 Rule ko

Rule ko is an assignment rule for parameter ko :

$$ko = \frac{kc}{Ke} \quad (5)$$

6.6 Rule $k1b$

Rule $k1b$ is an assignment rule for parameter $k1b$:

$$k1b = \frac{k1u}{K1} \quad (6)$$

6.7 Rule $k1o$

Rule $k1o$ is an assignment rule for parameter $k1o$:

$$k1o = \frac{k1c}{Ke1} \quad (7)$$

6.8 Rule $kkin68$

Rule $kkin68$ is an assignment rule for parameter $kkin68$:

$$kkin68 = kkin \quad (8)$$

6.9 Rule $kptp68$

Rule $kptp68$ is an assignment rule for parameter $kptp68$:

$$kptp68 = kptp \quad (9)$$

6.10 Rule $kb45$

Rule $kb45$ is an assignment rule for parameter $kb45$:

$$kb45 = \frac{ku45}{K45} \quad (10)$$

6.11 Rule $kb68$

Rule $kb68$ is an assignment rule for parameter $kb68$:

$$kb68 = kb45 \quad (11)$$

6.12 Rule $ku68$

Rule $ku68$ is an assignment rule for parameter $ku68$:

$$ku68 = ku45 \quad (12)$$

6.13 Rule $kbcg$

Rule $kbcg$ is an assignment rule for parameter $kbcg$:

$$kbcg = \frac{kucg}{Kcg} \quad (13)$$

6.14 Rule ku45M

Rule ku45M is an assignment rule for parameter ku45M :

$$\text{ku45M} = \text{ku45} \quad (14)$$

6.15 Rule kb45P

Rule kb45P is an assignment rule for parameter kb45P :

$$\text{kb45P} = \frac{\text{ku45M}}{\text{K45P}} \quad (15)$$

6.16 Rule kb68P

Rule kb68P is an assignment rule for parameter kb68P :

$$\text{kb68P} = \text{kb45P} \quad (16)$$

6.17 Rule ku68M

Rule ku68M is an assignment rule for parameter ku68M :

$$\text{ku68M} = \text{ku45M} \quad (17)$$

6.18 Rule kucgM

Rule kucgM is an assignment rule for parameter kucgM :

$$\text{kucgM} = \text{kucg} \quad (18)$$

6.19 Rule kbcgP

Rule kbcgP is an assignment rule for parameter kbcgP :

$$\text{kbcgP} = \frac{\text{kucgM}}{\text{KcgP}} \quad (19)$$

6.20 Rule SumM

Rule SumM is an assignment rule for species SumM :

$$\begin{aligned} \text{SumM} = & [\text{R00UU}] + [\text{R10UU}] + [\text{R10CU}] + [\text{R10LU}] + [\text{R01UU}] + [\text{R01UG}] + [\text{R01UL}] \\ & + [\text{R11UU}] + [\text{R11CU}] + [\text{R11LU}] + [\text{R11UG}] + [\text{R11UL}] + [\text{R11CG}] \\ & + [\text{R11CC}] + [\text{R11LG}] + [\text{R02UU}] + [\text{R02UG}] + [\text{R02UL}] + [\text{R12UU}] \\ & + [\text{R12CU}] + [\text{R12LU}] + [\text{R12UG}] + [\text{R12UL}] + [\text{R12CG}] + [\text{R12CC}] + [\text{R12LG}] \end{aligned} \quad (20)$$

Derived unit $\text{mol} \cdot \text{l}^{-1}$

6.21 Rule SumML

Rule SumML is an assignment rule for species SumML:

$$\begin{aligned}\text{SumML} = & [\text{RL00UU}] + [\text{RL10UU}] + [\text{RL10CU}] + [\text{RL10LU}] + [\text{RL01UU}] + [\text{RL01UG}] \\ & + [\text{RL01UL}] + [\text{RL11UU}] + [\text{RL11CU}] + [\text{RL11LU}] + [\text{RL11UG}] \\ & + [\text{RL11UL}] + [\text{RL11CG}] + [\text{RL11CC}] + [\text{RL11LG}] + [\text{RL02UU}] \\ & + [\text{RL02UG}] + [\text{RL02UL}] + [\text{RL12UU}] + [\text{RL12CU}] + [\text{RL12LU}] \\ & + [\text{RL12UG}] + [\text{RL12UL}] + [\text{RL12CG}] + [\text{RL12CC}] + [\text{RL12LG}]\end{aligned}\tag{21}$$

Derived unit $\text{mol} \cdot \text{l}^{-1}$

6.22 Rule PY

Rule PY is an assignment rule for species PY:

$$\begin{aligned}
 \text{PY} = & [\text{Rc10UU}] + [\text{Rc10CU}] + [\text{Rc10LU}] + [\text{RcL10UU}] + [\text{RcL10CU}] + [\text{RcL10LU}] \\
 & + [\text{R10UU}] + [\text{R10CU}] + [\text{R10LU}] + [\text{RL10UU}] + [\text{RL10CU}] + [\text{RL10LU}] + [\text{Di10UU}] \\
 & + [\text{Di10CU}] + [\text{Di10LU}] + [\text{Da10UU}] + [\text{Da10CU}] + [\text{Da10LU}] + [\text{DiL10UU}] \\
 & + [\text{DiL10CU}] + [\text{DiL10LU}] + [\text{DaL10UU}] + [\text{DaL10CU}] + [\text{DaL10LU}] + 1 \\
 & \cdot ([\text{Rc01UU}] + [\text{Rc01UG}] + [\text{Rc01UL}] + [\text{RcL01UU}] + [\text{RcL01UG}] + [\text{RcL01UL}] \\
 & + [\text{R01UU}] + [\text{R01UG}] + [\text{R01UL}] + [\text{RL01UU}] + [\text{RL01UG}] + [\text{RL01UL}] + [\text{Di01UU}] \\
 & + [\text{Di01UG}] + [\text{Di01UL}] + [\text{Da01UU}] + [\text{Da01UG}] + [\text{Da01UL}] + [\text{DiL01UU}] \\
 & + [\text{DiL01UG}] + [\text{DiL01UL}] + [\text{DaL01UU}] + [\text{DaL01UG}] + [\text{DaL01UL}]) + 2 \\
 & \cdot ([\text{Rc11UU}] + [\text{Rc11CU}] + [\text{Rc11LU}] + [\text{Rc11UG}] + [\text{Rc11UL}] + [\text{Rc11CG}] + [\text{Rc11CC}] \\
 & + [\text{Rc11LG}] + [\text{RcL11UU}] + [\text{RcL11CU}] + [\text{RcL11LU}] + [\text{RcL11UG}] + [\text{RcL11UL}] \\
 & + [\text{RcL11CG}] + [\text{RcL11CC}] + [\text{RcL11LG}] + [\text{R11UU}] + [\text{R11CU}] + [\text{R11LU}] + [\text{R11UG}] \\
 & + [\text{R11UL}] + [\text{R11CG}] + [\text{R11CC}] + [\text{R11LG}] + [\text{RL11UU}] + [\text{RL11CU}] + [\text{RL11LU}] \\
 & + [\text{RL11UG}] + [\text{RL11UL}] + [\text{RL11CG}] + [\text{RL11CC}] + [\text{RL11LG}] + [\text{Di11UU}] \\
 & + [\text{Di11CU}] + [\text{Di11LU}] + [\text{Di11UG}] + [\text{Di11UL}] + [\text{Di11CG}] + [\text{Di11CC}] + [\text{Di11LG}] \\
 & + [\text{Da11UU}] + [\text{Da11CU}] + [\text{Da11LU}] + [\text{Da11UG}] + [\text{Da11UL}] + [\text{Da11CG}] \\
 & + [\text{Da11CC}] + [\text{Da11LG}] + [\text{DiL11UU}] + [\text{DiL11CU}] + [\text{DiL11LU}] + [\text{DiL11UG}] \\
 & + [\text{DiL11UL}] + [\text{DiL11CG}] + [\text{DiL11CC}] + [\text{DiL11LG}] + [\text{DaL11UU}] + [\text{DaL11CU}] \\
 & + [\text{DaL11LU}] + [\text{DaL11UG}] + [\text{DaL11UL}] + [\text{DaL11CG}] + [\text{DaL11CC}] + [\text{DaL11LG}]) \\
 & + 2 \cdot ([\text{Rc02UU}] + [\text{Rc02UG}] + [\text{Rc02UL}] + [\text{RcL02UU}] + [\text{RcL02UG}] + [\text{RcL02UL}] \\
 & + [\text{R02UU}] + [\text{R02UG}] + [\text{R02UL}] + [\text{RL02UU}] + [\text{RL02UG}] + [\text{RL02UL}] + [\text{Di02UU}] \\
 & + [\text{Di02UG}] + [\text{Di02UL}] + [\text{Da02UU}] + [\text{Da02UG}] + [\text{Da02UL}] + [\text{DiL02UU}] \\
 & + [\text{DiL02UG}] + [\text{DiL02UL}] + [\text{DaL02UU}] + [\text{DaL02UG}] + [\text{DaL02UL}]) + 3 \\
 & \cdot ([\text{Rc12UU}] + [\text{Rc12CU}] + [\text{Rc12LU}] + [\text{Rc12UG}] + [\text{Rc12UL}] + [\text{Rc12CG}] + [\text{Rc12CC}] \\
 & + [\text{Rc12LG}] + [\text{RcL12UU}] + [\text{RcL12CU}] + [\text{RcL12LU}] + [\text{RcL12UG}] + [\text{RcL12UL}] \\
 & + [\text{RcL12CG}] + [\text{RcL12CC}] + [\text{RcL12LG}] + [\text{R12UU}] + [\text{R12CU}] + [\text{R12LU}] + [\text{R12UG}] \\
 & + [\text{R12UL}] + [\text{R12CG}] + [\text{R12CC}] + [\text{R12LG}] + [\text{RL12UU}] + [\text{RL12CU}] + [\text{RL12LU}] \\
 & + [\text{RL12UG}] + [\text{RL12UL}] + [\text{RL12CG}] + [\text{RL12CC}] + [\text{RL12LG}] + [\text{Di12UU}] \\
 & + [\text{Di12CU}] + [\text{Di12LU}] + [\text{Di12UG}] + [\text{Di12UL}] + [\text{Di12CG}] + [\text{Di12CC}] + [\text{Di12LG}] \\
 & + [\text{Da12UU}] + [\text{Da12CU}] + [\text{Da12LU}] + [\text{Da12UG}] + [\text{Da12UL}] + [\text{Da12CG}] \\
 & + [\text{Da12CC}] + [\text{Da12LG}] + [\text{DiL12UU}] + [\text{DiL12CU}] + [\text{DiL12LU}] + [\text{DiL12UG}] \\
 & + [\text{DiL12UL}] + [\text{DiL12CG}] + [\text{DiL12CC}] + [\text{DiL12LG}] + [\text{DaL12UU}] + [\text{DaL12CU}] \\
 & + [\text{DaL12LU}] + [\text{DaL12UG}] + [\text{DaL12UL}] + [\text{DaL12CG}] + [\text{DaL12CC}] + [\text{DaL12LG}]) \\
 & \quad (22)
 \end{aligned}$$

6.23 Rule Ub

Rule Ub is an assignment rule for species Ub:

$$\begin{aligned}
 \text{Ub} = & [\text{Rc11CC}] + [\text{Rc12CC}] + [\text{RcL11CC}] + [\text{RcL12CC}] + [\text{R11CC}] + [\text{R12CC}] + [\text{RL11CC}] \\
 & + [\text{RL12CC}] + [\text{Di11CC}] + [\text{Di12CC}] + [\text{Da11CC}] + [\text{Da12CC}] + [\text{DiL11CC}] \\
 & + [\text{DiL12CC}] + [\text{DaL11CC}] + [\text{DaL12CC}] + [\text{Rc10CU}] + [\text{Rc11CU}] + [\text{Rc12CU}] \\
 & + [\text{RcL10CU}] + [\text{RcL11CU}] + [\text{RcL12CU}] + [\text{R10CU}] + [\text{R11CU}] + [\text{R12CU}] + [\text{RL10CU}] \\
 & + [\text{RL11CU}] + [\text{RL12CU}] + [\text{Di10CU}] + [\text{Di11CU}] + [\text{Di12CU}] + [\text{Da10CU}] + [\text{Da11CU}] \\
 & + [\text{Da12CU}] + [\text{DiL10CU}] + [\text{DiL11CU}] + [\text{DiL12CU}] + [\text{DaL10CU}] + [\text{DaL11CU}] \\
 & + [\text{DaL12CU}] + [\text{Rc10LU}] + [\text{Rc11LU}] + [\text{Rc12LU}] + [\text{RcL10LU}] + [\text{RcL11LU}] \\
 & + [\text{RcL12LU}] + [\text{R10LU}] + [\text{R11LU}] + [\text{R12LU}] + [\text{RL10LU}] + [\text{RL11LU}] + [\text{RL12LU}] \\
 & + [\text{Di10LU}] + [\text{Di11LU}] + [\text{Di12LU}] + [\text{Da10LU}] + [\text{Da11LU}] + [\text{Da12LU}] + [\text{DiL10LU}] \\
 & + [\text{DiL11LU}] + [\text{DiL12LU}] + [\text{DaL10LU}] + [\text{DaL11LU}] + [\text{DaL12LU}] + [\text{Rc11CG}] \\
 & + [\text{Rc12CG}] + [\text{RcL11CG}] + [\text{RcL12CG}] + [\text{R11CG}] + [\text{R12CG}] + [\text{RL11CG}] \\
 & + [\text{RL12CG}] + [\text{Di11CG}] + [\text{Di12CG}] + [\text{Da11CG}] + [\text{Da12CG}] + [\text{DiL11CG}] \\
 & + [\text{DiL12CG}] + [\text{DaL11CG}] + [\text{DaL12CG}] + [\text{Rc11LG}] + [\text{Rc12LG}] + [\text{RcL11LG}] \\
 & + [\text{RcL12LG}] + [\text{R11LG}] + [\text{R12LG}] + [\text{RL11LG}] + [\text{RL12LG}] + [\text{Di11LG}] + [\text{Di12LG}] \\
 & + [\text{Da11LG}] + [\text{Da12LG}] + [\text{DiL11LG}] + [\text{DiL12LG}] + [\text{DaL11LG}] + [\text{DaL12LG}]
 \end{aligned}
 \tag{23}$$

Derived unit $\text{mol} \cdot \text{l}^{-1}$

6.24 Rule PYNorm

Rule PYNorm is an assignment rule for species PYNorm:

$$\text{PYNorm} = \frac{[\text{PY}]}{\text{PYMax}}
 \tag{24}$$

6.25 Rule UbNorm

Rule UbNorm is an assignment rule for species UbNorm:

$$\text{UbNorm} = \frac{[\text{Ub}]}{\text{UbMax} \cdot \text{CblFactor}}
 \tag{25}$$

7 Reactions

This model contains 1490 reactions. All reactions are listed in the following table and are subsequently described in detail. If a reaction is affected by a modifier, the identifier of this species is written above the reaction arrow.

Table 5: Overview of all reactions

Nº	Id	Name	Reaction Equation	SBO
1	r1	Rc10UU has site Y1045 dephosphorylated	$\text{Rc10UU} \xrightleftharpoons{\text{Rc10UU}} \text{Rc00UU}$	
2	r2	Rc01UU has site Y1068/Y1086 dephosphorylated	$\text{Rc01UU} \xrightleftharpoons{\text{Rc01UU}} \text{Rc00UU}$	
3	r3	Rc11UU has site Y1045 dephosphorylated	$\text{Rc11UU} \xrightleftharpoons{\text{Rc11UU}} \text{Rc01UU}$	
4	r4	Rc11UU has site Y1068/Y1086 dephosphorylated	$\text{Rc11UU} \xrightleftharpoons{\text{Rc11UU}} \text{Rc10UU}$	
5	r5	Rc11CU has site Y1068/Y1086 dephosphorylated	$\text{Rc11CU} \xrightleftharpoons{\text{Rc11CU}} \text{Rc10CU}$	
6	r6	Rc11LU has site Y1068/Y1086 dephosphorylated	$\text{Rc11LU} \xrightleftharpoons{\text{Rc11LU}} \text{Rc10LU}$	
7	r7	Rc11UG has site Y1045 dephosphorylated	$\text{Rc11UG} \xrightleftharpoons{\text{Rc11UG}} \text{Rc01UG}$	
8	r8	Rc11UL has site Y1045 dephosphorylated	$\text{Rc11UL} \xrightleftharpoons{\text{Rc11UL}} \text{Rc01UL}$	
9	r9	Rc02UU has site Y1068/Y1086 dephosphorylated	$\text{Rc02UU} \xrightleftharpoons{\text{Rc02UU}} \text{Rc01UU}$	
10	r10	Rc02UG has site Y1068/Y1-86 dephosphorylated	$\text{Rc02UG} \xrightleftharpoons{\text{Rc02UG}} \text{Rc01UG}$	
11	r11	Rc02UL has site Y1068/Y1-86 dephosphorylated	$\text{Rc02UL} \xrightleftharpoons{\text{Rc02UL}} \text{Rc01UL}$	

Nº	Id	Name	Reaction Equation	SBO
12	r12	Rc12UU has site Y1045 dephosphorylated	$\text{Rc12UU} \xrightleftharpoons{\text{Rc12UU}} \text{Rc02UU}$	
13	r13	Rc12UU has site Y1068/Y1086 dephosphorylated	$\text{Rc12UU} \xrightleftharpoons{\text{Rc12UU}} \text{Rc11UU}$	
14	r14	Rc12CU has site Y1068/Y1086 dephosphorylated	$\text{Rc12CU} \xrightleftharpoons{\text{Rc12CU}} \text{Rc11CU}$	
15	r15	Rc12LU has site Y1068/Y1086 dephosphorylated	$\text{Rc12LU} \xrightleftharpoons{\text{Rc12LU}} \text{Rc11LU}$	
16	r16	Rc12UG has site Y1045 dephosphorylated	$\text{Rc12UG} \xrightleftharpoons{\text{Rc12UG}} \text{Rc02UG}$	
17	r17	Rc12UG has site Y1068/Y1-86 dephosphorylated	$\text{Rc12UG} \xrightleftharpoons{\text{Rc12UG}} \text{Rc11UG}$	
18	r18	Rc12UL has site Y1045 dephosphorylated	$\text{Rc12UL} \xrightleftharpoons{\text{Rc12UL}} \text{Rc02UL}$	
19	r19	Rc12UL has site Y1068/Y1-86 dephosphorylated	$\text{Rc12UL} \xrightleftharpoons{\text{Rc12UL}} \text{Rc11UL}$	
20	r20	Rc12CG has site Y1068/Y1-86 dephosphorylated	$\text{Rc12CG} \xrightleftharpoons{\text{Rc12CG}} \text{Rc11CG}$	
21	r21	Rc12CC has site Y1068/Y1-86 dephosphorylated	$\text{Rc12CC} \xrightleftharpoons{\text{Rc12CC}} \text{Rc11CC}$	
22	r22	Rc12LG has site Y1068/Y1-86 dephosphorylated	$\text{Rc12LG} \xrightleftharpoons{\text{Rc12LG}} \text{Rc11LG}$	
23	r23	RcL10UU has site Y1045 dephosphorylated	$\text{RcL10UU} \xrightleftharpoons{\text{RcL10UU}} \text{RcL00UU}$	
24	r24	RcL01UU has site Y1068/Y1086 dephosphorylated	$\text{RcL01UU} \xrightleftharpoons{\text{RcL01UU}} \text{RcL00UU}$	
25	r25	RcL11UU has site Y1045 dephosphorylated	$\text{RcL11UU} \xrightleftharpoons{\text{RcL11UU}} \text{RcL01UU}$	

Nº	Id	Name	Reaction Equation	SBO
26	r26	RcL11UU has site Y1068/Y1086 dephosphorylated	$\text{RcL11UU} \xrightleftharpoons{\text{RcL11UU}} \text{RcL10UU}$	
27	r27	RcL11CU has site Y1068/Y1086 dephosphorylated	$\text{RcL11CU} \xrightleftharpoons{\text{RcL11CU}} \text{RcL10CU}$	
28	r28	RcL11LU has site Y1068/Y1086 dephosphorylated	$\text{RcL11LU} \xrightleftharpoons{\text{RcL11LU}} \text{RcL10LU}$	
29	r29	RcL11UG has site Y1045 dephosphorylated	$\text{RcL11UG} \xrightleftharpoons{\text{RcL11UG}} \text{RcL01UG}$	
30	r30	RcL11UL has site Y1045 dephosphorylated	$\text{RcL11UL} \xrightleftharpoons{\text{RcL11UL}} \text{RcL01UL}$	
31	r31	RcL02UU has site Y1068/Y1086 dephosphorylated	$\text{RcL02UU} \xrightleftharpoons{\text{RcL02UU}} \text{RcL01UU}$	
32	r32	RcL02UG has site Y1068/Y1-86 dephosphorylated	$\text{RcL02UG} \xrightleftharpoons{\text{RcL02UG}} \text{RcL01UG}$	
33	r33	RcL02UL has site Y1068/Y1-86 dephosphorylated	$\text{RcL02UL} \xrightleftharpoons{\text{RcL02UL}} \text{RcL01UL}$	
34	r34	RcL12UU has site Y1045 dephosphorylated	$\text{RcL12UU} \xrightleftharpoons{\text{RcL12UU}} \text{RcL02UU}$	
35	r35	RcL12UU has site Y1068/Y1086 dephosphorylated	$\text{RcL12UU} \xrightleftharpoons{\text{RcL12UU}} \text{RcL11UU}$	
36	r36	RcL12CU has site Y1068/Y1086 dephosphorylated	$\text{RcL12CU} \xrightleftharpoons{\text{RcL12CU}} \text{RcL11CU}$	
37	r37	RcL12LU has site Y1068/Y1086 dephosphorylated	$\text{RcL12LU} \xrightleftharpoons{\text{RcL12LU}} \text{RcL11LU}$	
38	r38	RcL12UG has site Y1045 dephosphorylated	$\text{RcL12UG} \xrightleftharpoons{\text{RcL12UG}} \text{RcL02UG}$	

Nº	Id	Name	Reaction Equation	SBO
39	r39	RcL12UG has site Y1068/Y1-86 dephosphorylated	$\text{RcL12UG} \xrightleftharpoons{\text{RcL12UG}} \text{RcL11UG}$	
40	r40	RcL12UL has site Y1045 dephosphorylated	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{RcL02UL}$	
41	r41	RcL12UL has site Y1068/Y1-86 dephosphorylated	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{RcL11UL}$	
42	r42	RcL12CG has site Y1068/Y1-86 dephosphorylated	$\text{RcL12CG} \xrightleftharpoons{\text{RcL12CG}} \text{RcL11CG}$	
43	r43	RcL12CC has site Y1068/Y1-86 dephosphorylated	$\text{RcL12CC} \xrightleftharpoons{\text{RcL12CC}} \text{RcL11CC}$	
44	r44	RcL12LG has site Y1068/Y1-86 dephosphorylated	$\text{RcL12LG} \xrightleftharpoons{\text{RcL12LG}} \text{RcL11LG}$	
45	r45	R10UU has site Y1045 dephosphorylated	$\text{R10UU} \xrightleftharpoons{\text{R10UU}} \text{R00UU}$	
46	r46	R01UU has site Y1068/Y1086 dephosphorylated	$\text{R01UU} \xrightleftharpoons{\text{R01UU}} \text{R00UU}$	
47	r47	R11UU has site Y1045 dephosphorylated	$\text{R11UU} \xrightleftharpoons{\text{R11UU}} \text{R01UU}$	
48	r48	R11UU has site Y1068/Y1086 dephosphorylated	$\text{R11UU} \xrightleftharpoons{\text{R11UU}} \text{R10UU}$	
49	r49	R11CU has site Y1068/Y1086 dephosphorylated	$\text{R11CU} \xrightleftharpoons{\text{R11CU}} \text{R10CU}$	
50	r50	R11LU has site Y1068/Y1086 dephosphorylated	$\text{R11LU} \xrightleftharpoons{\text{R11LU}} \text{R10LU}$	
51	r51	R11UG has site Y1045 dephosphorylated	$\text{R11UG} \xrightleftharpoons{\text{R11UG}} \text{R01UG}$	
52	r52	R11UL has site Y1045 dephosphorylated	$\text{R11UL} \xrightleftharpoons{\text{R11UL}} \text{R01UL}$	

Nº	Id	Name	Reaction Equation	SBO
53	r53	R02UU has site Y1068/Y1086 dephosphorylated	$R02UU \xrightleftharpoons{R02UU} R01UU$	
54	r54	R02UG has site Y1068/Y1-86 dephosphorylated	$R02UG \xrightleftharpoons{R02UG} R01UG$	
55	r55	R02UL has site Y1068/Y1-86 dephosphorylated	$R02UL \xrightleftharpoons{R02UL} R01UL$	
56	r56	R12UU has site Y1045 dephosphorylated	$R12UU \xrightleftharpoons{R12UU} R02UU$	
57	r57	R12UU has site Y1068/Y1086 dephosphorylated	$R12UU \xrightleftharpoons{R12UU} R11UU$	
58	r58	R12CU has site Y1068/Y1086 dephosphorylated	$R12CU \xrightleftharpoons{R12CU} R11CU$	
59	r59	R12LU has site Y1068/Y1086 dephosphorylated	$R12LU \xrightleftharpoons{R12LU} R11LU$	
60	r60	R12UG has site Y1045 dephosphorylated	$R12UG \xrightleftharpoons{R12UG} R02UG$	
61	r61	R12UG has site Y1068/Y1-86 dephosphorylated	$R12UG \xrightleftharpoons{R12UG} R11UG$	
62	r62	R12UL has site Y1045 dephosphorylated	$R12UL \xrightleftharpoons{R12UL} R02UL$	
63	r63	R12UL has site Y1068/Y1-86 dephosphorylated	$R12UL \xrightleftharpoons{R12UL} R11UL$	
64	r64	R12CG has site Y1068/Y1-86 dephosphorylated	$R12CG \xrightleftharpoons{R12CG} R11CG$	
65	r65	R12CC has site Y1068/Y1-86 dephosphorylated	$R12CC \xrightleftharpoons{R12CC} R11CC$	

Nº	Id	Name	Reaction Equation	SBO
66	r66	R12LG has site Y1068/Y1-86 dephosphorylated	$R12LG \xrightleftharpoons{R12LG} R11LG$	
67	r67	RL10UU has site Y1045 dephosphorylated	$RL10UU \xrightleftharpoons{RL10UU} RL00UU$	
68	r68	RL01UU has site Y1068/Y1086 dephosphorylated	$RL01UU \xrightleftharpoons{RL01UU} RL00UU$	
69	r69	RL11UU has site Y1045 dephosphorylated	$RL11UU \xrightleftharpoons{RL11UU} RL01UU$	
70	r70	RL11UU has site Y1068/Y1086 dephosphorylated	$RL11UU \xrightleftharpoons{RL11UU} RL10UU$	
71	r71	RL11CU has site Y1068/Y1086 dephosphorylated	$RL11CU \xrightleftharpoons{RL11CU} RL10CU$	
72	r72	RL11LU has site Y1068/Y1086 dephosphorylated	$RL11LU \xrightleftharpoons{RL11LU} RL10LU$	
73	r73	RL11UG has site Y1045 dephosphorylated	$RL11UG \xrightleftharpoons{RL11UG} RL01UG$	
74	r74	RL11UL has site Y1045 dephosphorylated	$RL11UL \xrightleftharpoons{RL11UL} RL01UL$	
75	r75	RL02UU has site Y1068/Y1086 dephosphorylated	$RL02UU \xrightleftharpoons{RL02UU} RL01UU$	
76	r76	RL02UG has site Y1068/Y1-86 dephosphorylated	$RL02UG \xrightleftharpoons{RL02UG} RL01UG$	
77	r77	RL02UL has site Y1068/Y1-86 dephosphorylated	$RL02UL \xrightleftharpoons{RL02UL} RL01UL$	
78	r78	RL12UU has site Y1045 dephosphorylated	$RL12UU \xrightleftharpoons{RL12UU} RL02UU$	
79	r79	RL12UU has site Y1068/Y1086 dephosphorylated	$RL12UU \xrightleftharpoons{RL12UU} RL11UU$	

Nº	Id	Name	Reaction Equation	SBO
80	r80	RL12CU has site Y1068/Y1086 dephosphorylated	$\text{RL12CU} \xrightleftharpoons{\text{RL12CU}} \text{RL11CU}$	
81	r81	RL12LU has site Y1068/Y1086 dephosphorylated	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{RL11LU}$	
82	r82	RL12UG has site Y1045 dephosphorylated	$\text{RL12UG} \xrightleftharpoons{\text{RL12UG}} \text{RL02UG}$	
83	r83	RL12UG has site Y1068/Y1-86 dephosphorylated	$\text{RL12UG} \xrightleftharpoons{\text{RL12UG}} \text{RL11UG}$	
84	r84	RL12UL has site Y1045 dephosphorylated	$\text{RL12UL} \xrightleftharpoons{\text{RL12UL}} \text{RL02UL}$	
85	r85	RL12UL has site Y1068/Y1-86 dephosphorylated	$\text{RL12UL} \xrightleftharpoons{\text{RL12UL}} \text{RL11UL}$	
86	r86	RL12CG has site Y1068/Y1-86 dephosphorylated	$\text{RL12CG} \xrightleftharpoons{\text{RL12CG}} \text{RL11CG}$	
87	r87	RL12CC has site Y1068/Y1-86 dephosphorylated	$\text{RL12CC} \xrightleftharpoons{\text{RL12CC}} \text{RL11CC}$	
88	r88	RL12LG has site Y1068/Y1-86 dephosphorylated	$\text{RL12LG} \xrightleftharpoons{\text{RL12LG}} \text{RL11LG}$	
89	r89	Di10UU has site Y1045 dephosphorylated	$\text{Di10UU} \xrightleftharpoons{\text{Di10UU}} \text{Di00UU}$	
90	r90	Di01UU has site Y1068/Y1086 dephosphorylated	$\text{Di01UU} \xrightleftharpoons{\text{Di01UU}} \text{Di00UU}$	
91	r91	Di11UU has site Y1045 dephosphorylated	$\text{Di11UU} \xrightleftharpoons{\text{Di11UU}} \text{Di01UU}$	
92	r92	Di11UU has site Y1068/Y1086 dephosphorylated	$\text{Di11UU} \xrightleftharpoons{\text{Di11UU}} \text{Di10UU}$	

Nº	Id	Name	Reaction Equation	SBO
93	r93	Di11CU has site Y1068/Y1086 dephosphorylated	$\text{Di11CU} \xrightleftharpoons{\text{Di11CU}} \text{Di10CU}$	
94	r94	Di11LU has site Y1068/Y1086 dephosphorylated	$\text{Di11LU} \xrightleftharpoons{\text{Di11LU}} \text{Di10LU}$	
95	r95	Di11UG has site Y1045 dephosphorylated	$\text{Di11UG} \xrightleftharpoons{\text{Di11UG}} \text{Di01UG}$	
96	r96	Di11UL has site Y1045 dephosphorylated	$\text{Di11UL} \xrightleftharpoons{\text{Di11UL}} \text{Di01UL}$	
97	r97	Di02UU has site Y1068/Y1086 dephosphorylated	$\text{Di02UU} \xrightleftharpoons{\text{Di02UU}} \text{Di01UU}$	
98	r98	Di02UG has site Y1068/Y1-86 dephosphorylated	$\text{Di02UG} \xrightleftharpoons{\text{Di02UG}} \text{Di01UG}$	
99	r99	Di02UL has site Y1068/Y1-86 dephosphorylated	$\text{Di02UL} \xrightleftharpoons{\text{Di02UL}} \text{Di01UL}$	
100	r100	Di12UU has site Y1045 dephosphorylated	$\text{Di12UU} \xrightleftharpoons{\text{Di12UU}} \text{Di02UU}$	
101	r101	Di12UU has site Y1068/Y1086 dephosphorylated	$\text{Di12UU} \xrightleftharpoons{\text{Di12UU}} \text{Di11UU}$	
102	r102	Di12CU has site Y1068/Y1086 dephosphorylated	$\text{Di12CU} \xrightleftharpoons{\text{Di12CU}} \text{Di11CU}$	
103	r103	Di12LU has site Y1068/Y1086 dephosphorylated	$\text{Di12LU} \xrightleftharpoons{\text{Di12LU}} \text{Di11LU}$	
104	r104	Di12UG has site Y1045 dephosphorylated	$\text{Di12UG} \xrightleftharpoons{\text{Di12UG}} \text{Di02UG}$	
105	r105	Di12UG has site Y1068/Y1-86 dephosphorylated	$\text{Di12UG} \xrightleftharpoons{\text{Di12UG}} \text{Di11UG}$	

Nº	Id	Name	Reaction Equation	SBO
106	r106	Di12UL has site Y1045 dephosphorylated	$\text{Di12UL} \xrightleftharpoons{\text{Di12UL}} \text{Di02UL}$	
107	r107	Di12UL has site Y1068/Y1-86 dephosphorylated	$\text{Di12UL} \xrightleftharpoons{\text{Di12UL}} \text{Di11UL}$	
108	r108	Di12CG has site Y1068/Y1-86 dephosphorylated	$\text{Di12CG} \xrightleftharpoons{\text{Di12CG}} \text{Di11CG}$	
109	r109	Di12CC has site Y1068/Y1-86 dephosphorylated	$\text{Di12CC} \xrightleftharpoons{\text{Di12CC}} \text{Di11CC}$	
110	r110	Di12LG has site Y1068/Y1-86 dephosphorylated	$\text{Di12LG} \xrightleftharpoons{\text{Di12LG}} \text{Di11LG}$	
111	r111	Da10UU has site Y1045 dephosphorylated	$\text{Da10UU} \xrightleftharpoons{\text{Da10UU}} \text{Da00UU}$	
112	r112	Da01UU has site Y1068/Y1086 dephosphorylated	$\text{Da01UU} \xrightleftharpoons{\text{Da01UU}} \text{Da00UU}$	
113	r113	Da11UU has site Y1045 dephosphorylated	$\text{Da11UU} \xrightleftharpoons{\text{Da11UU}} \text{Da01UU}$	
114	r114	Da11UU has site Y1068/Y1086 dephosphorylated	$\text{Da11UU} \xrightleftharpoons{\text{Da11UU}} \text{Da10UU}$	
115	r115	Da11CU has site Y1068/Y1086 dephosphorylated	$\text{Da11CU} \xrightleftharpoons{\text{Da11CU}} \text{Da10CU}$	
116	r116	Da11LU has site Y1068/Y1086 dephosphorylated	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{Da10LU}$	
117	r117	Da11UG has site Y1045 dephosphorylated	$\text{Da11UG} \xrightleftharpoons{\text{Da11UG}} \text{Da01UG}$	
118	r118	Da11UL has site Y1045 dephosphorylated	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{Da01UL}$	
119	r119	Da02UU has site Y1068/Y1086 dephosphorylated	$\text{Da02UU} \xrightleftharpoons{\text{Da02UU}} \text{Da01UU}$	

Nº	Id	Name	Reaction Equation	SBO
120	r120	Da02UG has site Y1068/Y1-86 dephosphorylated	$\text{Da02UG} \xrightleftharpoons{\text{Da02UG}} \text{Da01UG}$	
121	r121	Da02UL has site Y1068/Y1-86 dephosphorylated	$\text{Da02UL} \xrightleftharpoons{\text{Da02UL}} \text{Da01UL}$	
122	r122	Da12UU has site Y1045 dephosphorylated	$\text{Da12UU} \xrightleftharpoons{\text{Da12UU}} \text{Da02UU}$	
123	r123	Da12UU has site Y1068/Y1086 dephosphorylated	$\text{Da12UU} \xrightleftharpoons{\text{Da12UU}} \text{Da11UU}$	
124	r124	Da12CU has site Y1068/Y1086 dephosphorylated	$\text{Da12CU} \xrightleftharpoons{\text{Da12CU}} \text{Da11CU}$	
125	r125	Da12LU has site Y1068/Y1086 dephosphorylated	$\text{Da12LU} \xrightleftharpoons{\text{Da12LU}} \text{Da11LU}$	
126	r126	Da12UG has site Y1045 dephosphorylated	$\text{Da12UG} \xrightleftharpoons{\text{Da12UG}} \text{Da02UG}$	
127	r127	Da12UG has site Y1068/Y1-86 dephosphorylated	$\text{Da12UG} \xrightleftharpoons{\text{Da12UG}} \text{Da11UG}$	
128	r128	Da12UL has site Y1045 dephosphorylated	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{Da02UL}$	
129	r129	Da12UL has site Y1068/Y1-86 dephosphorylated	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{Da11UL}$	
130	r130	Da12CG has site Y1068/Y1-86 dephosphorylated	$\text{Da12CG} \xrightleftharpoons{\text{Da12CG}} \text{Da11CG}$	
131	r131	Da12CC has site Y1068/Y1-86 dephosphorylated	$\text{Da12CC} \xrightleftharpoons{\text{Da12CC}} \text{Da11CC}$	
132	r132	Da12LG has site Y1068/Y1-86 dephosphorylated	$\text{Da12LG} \xrightleftharpoons{\text{Da12LG}} \text{Da11LG}$	

Nº	Id	Name	Reaction Equation	SBO
133	r133	DiL10UU has site Y1045 dephosphorylated	$\text{DiL10UU} \xrightleftharpoons{\text{DiL10UU}} \text{DiL00UU}$	
134	r134	DiL01UU has site Y1068/Y1086 dephosphorylated	$\text{DiL01UU} \xrightleftharpoons{\text{DiL01UU}} \text{DiL00UU}$	
135	r135	DiL11UU has site Y1045 dephosphorylated	$\text{DiL11UU} \xrightleftharpoons{\text{DiL11UU}} \text{DiL01UU}$	
136	r136	DiL11UU has site Y1068/Y1086 dephosphorylated	$\text{DiL11UU} \xrightleftharpoons{\text{DiL11UU}} \text{DiL10UU}$	
137	r137	DiL11CU has site Y1068/Y1086 dephosphorylated	$\text{DiL11CU} \xrightleftharpoons{\text{DiL11CU}} \text{DiL10CU}$	
138	r138	DiL11LU has site Y1068/Y1086 dephosphorylated	$\text{DiL11LU} \xrightleftharpoons{\text{DiL11LU}} \text{DiL10LU}$	
139	r139	DiL11UG has site Y1045 dephosphorylated	$\text{DiL11UG} \xrightleftharpoons{\text{DiL11UG}} \text{DiL01UG}$	
140	r140	DiL11UL has site Y1045 dephosphorylated	$\text{DiL11UL} \xrightleftharpoons{\text{DiL11UL}} \text{DiL01UL}$	
141	r141	DiL02UU has site Y1068/Y1086 dephosphorylated	$\text{DiL02UU} \xrightleftharpoons{\text{DiL02UU}} \text{DiL01UU}$	
142	r142	DiL02UG has site Y1068/Y1-86 dephosphorylated	$\text{DiL02UG} \xrightleftharpoons{\text{DiL02UG}} \text{DiL01UG}$	
143	r143	DiL02UL has site Y1068/Y1-86 dephosphorylated	$\text{DiL02UL} \xrightleftharpoons{\text{DiL02UL}} \text{DiL01UL}$	
144	r144	DiL12UU has site Y1045 dephosphorylated	$\text{DiL12UU} \xrightleftharpoons{\text{DiL12UU}} \text{DiL02UU}$	
145	r145	DiL12UU has site Y1068/Y1086 dephosphorylated	$\text{DiL12UU} \xrightleftharpoons{\text{DiL12UU}} \text{DiL11UU}$	
146	r146	DiL12CU has site Y1068/Y1086 dephosphorylated	$\text{DiL12CU} \xrightleftharpoons{\text{DiL12CU}} \text{DiL11CU}$	

Nº	Id	Name	Reaction Equation	SBO
147	r147	DiL12LU has site Y1068/Y1086 dephosphorylated	$\text{DiL12LU} \xrightleftharpoons{\text{DiL12LU}} \text{DiL11LU}$	
148	r148	DiL12UG has site Y1045 dephosphorylated	$\text{DiL12UG} \xrightleftharpoons{\text{DiL12UG}} \text{DiL02UG}$	
149	r149	DiL12UG has site Y1068/Y1-86 dephosphorylated	$\text{DiL12UG} \xrightleftharpoons{\text{DiL12UG}} \text{DiL11UG}$	
150	r150	DiL12UL has site Y1045 dephosphorylated	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{DiL02UL}$	
151	r151	DiL12UL has site Y1068/Y1-86 dephosphorylated	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{DiL11UL}$	
152	r152	DiL12CG has site Y1068/Y1-86 dephosphorylated	$\text{DiL12CG} \xrightleftharpoons{\text{DiL12CG}} \text{DiL11CG}$	
153	r153	DiL12CC has site Y1068/Y1-86 dephosphorylated	$\text{DiL12CC} \xrightleftharpoons{\text{DiL12CC}} \text{DiL11CC}$	
154	r154	DiL12LG has site Y1068/Y1-86 dephosphorylated	$\text{DiL12LG} \xrightleftharpoons{\text{DiL12LG}} \text{DiL11LG}$	
155	r155	DaL10UU has site Y1045 dephosphorylated	$\text{DaL10UU} \xrightleftharpoons{\text{DaL10UU}} \text{DaL00UU}$	
156	r156	DaL01UU has site Y1068/Y1086 dephosphorylated	$\text{DaL01UU} \xrightleftharpoons{\text{DaL01UU}} \text{DaL00UU}$	
157	r157	DaL11UU has site Y1045 dephosphorylated	$\text{DaL11UU} \xrightleftharpoons{\text{DaL11UU}} \text{DaL01UU}$	
158	r158	DaL11UU has site Y1068/Y1086 dephosphorylated	$\text{DaL11UU} \xrightleftharpoons{\text{DaL11UU}} \text{DaL10UU}$	
159	r159	DaL11CU has site Y1068/Y1086 dephosphorylated	$\text{DaL11CU} \xrightleftharpoons{\text{DaL11CU}} \text{DaL10CU}$	

Nº	Id	Name	Reaction Equation	SBO
160	r160	DaL11LU has site Y1068/Y1086 dephosphorylated	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{DaL10LU}$	
161	r161	DaL11UG has site Y1045 dephosphorylated	$\text{DaL11UG} \xrightleftharpoons{\text{DaL11UG}} \text{DaL01UG}$	
162	r162	DaL11UL has site Y1045 dephosphorylated	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{DaL01UL}$	
163	r163	DaL02UU has site Y1068/Y1086 dephosphorylated	$\text{DaL02UU} \xrightleftharpoons{\text{DaL02UU}} \text{DaL01UU}$	
164	r164	DaL02UG has site Y1068/Y1-86 dephosphorylated	$\text{DaL02UG} \xrightleftharpoons{\text{DaL02UG}} \text{DaL01UG}$	
165	r165	DaL02UL has site Y1068/Y1-86 dephosphorylated	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{DaL01UL}$	
166	r166	DaL12UU has site Y1045 dephosphorylated	$\text{DaL12UU} \xrightleftharpoons{\text{DaL12UU}} \text{DaL02UU}$	
167	r167	DaL12UU has site Y1068/Y1086 dephosphorylated	$\text{DaL12UU} \xrightleftharpoons{\text{DaL12UU}} \text{DaL11UU}$	
168	r168	DaL12CU has site Y1068/Y1086 dephosphorylated	$\text{DaL12CU} \xrightleftharpoons{\text{DaL12CU}} \text{DaL11CU}$	
169	r169	DaL12LU has site Y1068/Y1086 dephosphorylated	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{DaL11LU}$	
170	r170	DaL12UG has site Y1045 dephosphorylated	$\text{DaL12UG} \xrightleftharpoons{\text{DaL12UG}} \text{DaL02UG}$	
171	r171	DaL12UG has site Y1068/Y1-86 dephosphorylated	$\text{DaL12UG} \xrightleftharpoons{\text{DaL12UG}} \text{DaL11UG}$	
172	r172	DaL12UL has site Y1045 dephosphorylated	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{DaL02UL}$	
173	r173	DaL12UL has site Y1068/Y1-86 dephosphorylated	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{DaL11UL}$	

Nº	Id	Name	Reaction Equation	SBO
174	r174	DaL12CG has site Y1068/Y1-86 dephosphorylated	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{DaL11CG}$	
175	r175	DaL12CC has site Y1068/Y1-86 dephosphorylated	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{DaL11CC}$	
176	r176	DaL12LG has site Y1068/Y1-86 dephosphorylated	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{DaL11LG}$	
177	r177	Da00UU has site Y1045 phosphorylated	$\text{Da00UU} \xrightleftharpoons{\text{Da00UU}} \text{Da10UU}$	
178	r178	Da00UU has site Y1068/Y1086 phosphorylated	$\text{Da00UU} \xrightleftharpoons{\text{Da00UU}} \text{Da01UU}$	
179	r179	Da10UU has site Y1068/Y1086 phosphorylated	$\text{Da10UU} \xrightleftharpoons{\text{Da10UU}} \text{Da11UU}$	
180	r180	Da10CU has site Y1068/Y1086 phosphorylated	$\text{Da10CU} \xrightleftharpoons{\text{Da10CU}} \text{Da11CU}$	
181	r181	Da10LU has site Y1068/Y1086 phosphorylated	$\text{Da10LU} \xrightleftharpoons{\text{Da10LU}} \text{Da11LU}$	
182	r182	Da01UU has site Y1045 phosphorylated	$\text{Da01UU} \xrightleftharpoons{\text{Da01UU}} \text{Da11UU}$	
183	r183	Da01UU has site Y1068/Y1086 phosphorylated	$\text{Da01UU} \xrightleftharpoons{\text{Da01UU}} \text{Da02UU}$	
184	r184	Da01UG has site Y1045 phosphorylated	$\text{Da01UG} \xrightleftharpoons{\text{Da01UG}} \text{Da11UG}$	
185	r185	Da01UG has site Y1068/Y1086 phosphorylated	$\text{Da01UG} \xrightleftharpoons{\text{Da01UG}} \text{Da02UG}$	
186	r186	Da01UL has site Y1045 phosphorylated	$\text{Da01UL} \xrightleftharpoons{\text{Da01UL}} \text{Da11UL}$	

Nº	Id	Name	Reaction Equation	SBO
187	r187	Da01UL has site Y1068/Y1086 phosphorylated	$\text{Da01UL} \xrightleftharpoons{\text{Da01UL}} \text{Da02UL}$	
188	r188	Da11UU has site Y1068/Y1086 phosphorylated	$\text{Da11UU} \xrightleftharpoons{\text{Da11UU}} \text{Da12UU}$	
189	r189	Da11CU has site Y1068/Y1086 phosphorylated	$\text{Da11CU} \xrightleftharpoons{\text{Da11CU}} \text{Da12CU}$	
190	r190	Da11LU has site Y1068/Y1086 phosphorylated	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{Da12LU}$	
191	r191	Da11UG has site Y1068/Y1086 phosphorylated	$\text{Da11UG} \xrightleftharpoons{\text{Da11UG}} \text{Da12UG}$	
192	r192	Da11UL has site Y1068/Y1086 phosphorylated	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{Da12UL}$	
193	r193	Da11CG has site Y1068/Y1086 phosphorylated	$\text{Da11CG} \xrightleftharpoons{\text{Da11CG}} \text{Da12CG}$	
194	r194	Da11CC has site Y1068/Y1086 phosphorylated	$\text{Da11CC} \xrightleftharpoons{\text{Da11CC}} \text{Da12CC}$	
195	r195	Da11LG has site Y1068/Y1086 phosphorylated	$\text{Da11LG} \xrightleftharpoons{\text{Da11LG}} \text{Da12LG}$	
196	r196	Da02UU has site Y1045 phosphorylated	$\text{Da02UU} \xrightleftharpoons{\text{Da02UU}} \text{Da12UU}$	
197	r197	Da02UG has site Y1045 phosphorylated	$\text{Da02UG} \xrightleftharpoons{\text{Da02UG}} \text{Da12UG}$	
198	r198	Da02UL has site Y1045 phosphorylated	$\text{Da02UL} \xrightleftharpoons{\text{Da02UL}} \text{Da12UL}$	
199	r199	DaL00UU has site Y1045 phosphorylated	$\text{DaL00UU} \xrightleftharpoons{\text{DaL00UU}} \text{DaL10UU}$	

Nº	Id	Name	Reaction Equation	SBO
200	r200	DaL00UU has site Y1068/Y1086 phosphorylated	$\text{DaL00UU} \xrightleftharpoons{\text{DaL00UU}} \text{DaL01UU}$	
201	r201	DaL10UU has site Y1068/Y1086 phosphorylated	$\text{DaL10UU} \xrightleftharpoons{\text{DaL10UU}} \text{DaL11UU}$	
202	r202	DaL10CU has site Y1068/Y1086 phosphorylated	$\text{DaL10CU} \xrightleftharpoons{\text{DaL10CU}} \text{DaL11CU}$	
203	r203	DaL10LU has site Y1068/Y1086 phosphorylated	$\text{DaL10LU} \xrightleftharpoons{\text{DaL10LU}} \text{DaL11LU}$	
204	r204	DaL01UU has site Y1045 phosphorylated	$\text{DaL01UU} \xrightleftharpoons{\text{DaL01UU}} \text{DaL11UU}$	
205	r205	DaL01UU has site Y1068/Y1086 phosphorylated	$\text{DaL01UU} \xrightleftharpoons{\text{DaL01UU}} \text{DaL02UU}$	
206	r206	DaL01UG has site Y1045 phosphorylated	$\text{DaL01UG} \xrightleftharpoons{\text{DaL01UG}} \text{DaL11UG}$	
207	r207	DaL01UG has site Y1068/Y1086 phosphorylated	$\text{DaL01UG} \xrightleftharpoons{\text{DaL01UG}} \text{DaL02UG}$	
208	r208	DaL01UL has site Y1045 phosphorylated	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{DaL11UL}$	
209	r209	DaL01UL has site Y1068/Y1086 phosphorylated	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{DaL02UL}$	
210	r210	DaL11UU has site Y1068/Y1086 phosphorylated	$\text{DaL11UU} \xrightleftharpoons{\text{DaL11UU}} \text{DaL12UU}$	
211	r211	DaL11CU has site Y1068/Y1086 phosphorylated	$\text{DaL11CU} \xrightleftharpoons{\text{DaL11CU}} \text{DaL12CU}$	
212	r212	DaL11LU has site Y1068/Y1086 phosphorylated	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{DaL12LU}$	

Nº	Id	Name	Reaction Equation	SBO
213	r213	DaL11UG has site Y1068/Y1086 phosphorylated	$\text{DaL11UG} \xrightleftharpoons{\text{DaL11UG}} \text{DaL12UG}$	
214	r214	DaL11UL has site Y1068/Y1086 phosphorylated	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{DaL12UL}$	
215	r215	DaL11CG has site Y1068/Y1086 phosphorylated	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{DaL12CG}$	
216	r216	DaL11CC has site Y1068/Y1086 phosphorylated	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{DaL12CC}$	
217	r217	DaL11LG has site Y1068/Y1086 phosphorylated	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{DaL12LG}$	
218	r218	DaL02UU has site Y1045 phosphorylated	$\text{DaL02UU} \xrightleftharpoons{\text{DaL02UU}} \text{DaL12UU}$	
219	r219	DaL02UG has site Y1045 phosphorylated	$\text{DaL02UG} \xrightleftharpoons{\text{DaL02UG}} \text{DaL12UG}$	
220	r220	DaL02UL has site Y1045 phosphorylated	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{DaL12UL}$	
221	r221	Cbl and Grb2 bind yielding CG	$\text{Cbl} + \text{Grb2} \xrightleftharpoons{\text{Cbl, Grb2}} \text{CG}$	
222	r222	CG dissociates to Cbl and Grb2	$\text{CG} \xrightleftharpoons{\text{CG}} \text{Cbl} + \text{Grb2}$	
223	r223	Cbl and Rc10UU bind yielding Rc10CU	$\text{Cbl} + \text{Rc10UU} \xrightleftharpoons{\text{Cbl, Rc10UU}} \text{Rc10CU}$	
224	r224	Rc10CU dissociates to Cbl and Rc10UU	$\text{Rc10CU} \xrightleftharpoons{\text{Rc10CU}} \text{Cbl} + \text{Rc10UU}$	
225	r225	CG and Rc10UU bind yielding Rc10LU	$\text{CG} + \text{Rc10UU} \xrightleftharpoons{\text{CG, Rc10UU}} \text{Rc10LU}$	
226	r226	Rc10LU dissociates to CG and Rc10UU	$\text{Rc10LU} \xrightleftharpoons{\text{Rc10LU}} \text{CG} + \text{Rc10UU}$	
227	r227	Grb2 and Rc10CU bind yielding Rc10LU	$\text{Grb2} + \text{Rc10CU} \xrightleftharpoons{\text{Grb2, Rc10CU}} \text{Rc10LU}$	
228	r228	Rc10LU dissociates to Grb2 and Rc10CU	$\text{Rc10LU} \xrightleftharpoons{\text{Rc10LU}} \text{Grb2} + \text{Rc10CU}$	

Nº	Id	Name	Reaction Equation	SBO
229	r229	Grb2 and Rc01UU bind yielding Rc01UG	$\text{Grb2} + \text{Rc01UU} \xrightleftharpoons{\text{Grb2, Rc01UU}} \text{Rc01UG}$	
230	r230	Rc01UG dissociates to Grb2 and Rc01UU	$\text{Rc01UG} \xrightleftharpoons{\text{Rc01UG}} \text{Grb2} + \text{Rc01UU}$	
231	r231	CG and Rc01UU bind yielding Rc01UL	$\text{CG} + \text{Rc01UU} \xrightleftharpoons{\text{CG, Rc01UU}} \text{Rc01UL}$	
232	r232	Rc01UL dissociates to CG and Rc01UU	$\text{Rc01UL} \xrightleftharpoons{\text{Rc01UL}} \text{CG} + \text{Rc01UU}$	
233	r233	Cbl and Rc01UG bind yielding Rc01UL	$\text{Cbl} + \text{Rc01UG} \xrightleftharpoons{\text{Cbl, Rc01UG}} \text{Rc01UL}$	
234	r234	Rc01UL dissociates to Cbl and Rc01UG	$\text{Rc01UL} \xrightleftharpoons{\text{Rc01UL}} \text{Cbl} + \text{Rc01UG}$	
235	r235	Cbl and Rc11UU bind yielding Rc11CU	$\text{Cbl} + \text{Rc11UU} \xrightleftharpoons{\text{Cbl, Rc11UU}} \text{Rc11CU}$	
236	r236	Rc11CU dissociates to Cbl and Rc11UU	$\text{Rc11CU} \xrightleftharpoons{\text{Rc11CU}} \text{Cbl} + \text{Rc11UU}$	
237	r237	CG and Rc11UU bind yielding Rc11LU	$\text{CG} + \text{Rc11UU} \xrightleftharpoons{\text{CG, Rc11UU}} \text{Rc11LU}$	
238	r238	Rc11LU dissociates to CG and Rc11UU	$\text{Rc11LU} \xrightleftharpoons{\text{Rc11LU}} \text{CG} + \text{Rc11UU}$	
239	r239	Grb2 and Rc11UU bind yielding Rc11UG	$\text{Grb2} + \text{Rc11UU} \xrightleftharpoons{\text{Grb2, Rc11UU}} \text{Rc11UG}$	
240	r240	Rc11UG dissociates to Grb2 and Rc11UU	$\text{Rc11UG} \xrightleftharpoons{\text{Rc11UG}} \text{Grb2} + \text{Rc11UU}$	
241	r241	CG and Rc11UU bind yielding Rc11UL	$\text{CG} + \text{Rc11UU} \xrightleftharpoons{\text{CG, Rc11UU}} \text{Rc11UL}$	
242	r242	Rc11UL dissociates to CG and Rc11UU	$\text{Rc11UL} \xrightleftharpoons{\text{Rc11UL}} \text{CG} + \text{Rc11UU}$	
243	r243	Grb2 and Rc11CU bind yielding Rc11LU	$\text{Grb2} + \text{Rc11CU} \xrightleftharpoons{\text{Grb2, Rc11CU}} \text{Rc11LU}$	
244	r244	Rc11LU dissociates to Grb2 and Rc11CU	$\text{Rc11LU} \xrightleftharpoons{\text{Rc11LU}} \text{Grb2} + \text{Rc11CU}$	
245	r245	Grb2 and Rc11CU bind yielding Rc11CG	$\text{Grb2} + \text{Rc11CU} \xrightleftharpoons{\text{Grb2, Rc11CU}} \text{Rc11CG}$	
246	r246	Rc11CG dissociates to Grb2 and Rc11CU	$\text{Rc11CG} \xrightleftharpoons{\text{Rc11CG}} \text{Grb2} + \text{Rc11CU}$	
247	r247	Grb2 and Rc11LU bind yielding Rc11LG	$\text{Grb2} + \text{Rc11LU} \xrightleftharpoons{\text{Grb2, Rc11LU}} \text{Rc11LG}$	

Nº	Id	Name	Reaction Equation	SBO
248	r248	Rc11LG dissociates to Grb2 and Rc11LU	$\text{Rc11LG} \xrightleftharpoons{\text{Rc11LG}} \text{Grb2} + \text{Rc11LU}$	
249	r249	Rc11LU transforms in (singly-bound -> doubly-bound) Rc11CC	$\text{Rc11LU} \xrightleftharpoons{\text{Rc11LU}} \text{Rc11CC}$	
250	r250	Rc11CC tranforms in (doubly-bound -> singly-bound) Rc11LU	$\text{Rc11CC} \xrightleftharpoons{\text{Rc11CC}} \text{Rc11LU}$	
251	r251	Cbl and Rc11UG bind yielding Rc11CG	$\text{Cbl} + \text{Rc11UG} \xrightleftharpoons{\text{Cbl, Rc11UG}} \text{Rc11CG}$	
252	r252	Rc11CG dissociates to Cbl and Rc11UG	$\text{Rc11CG} \xrightleftharpoons{\text{Rc11CG}} \text{Cbl} + \text{Rc11UG}$	
253	r253	CG and Rc11UG bind yielding Rc11LG	$\text{CG} + \text{Rc11UG} \xrightleftharpoons{\text{CG, Rc11UG}} \text{Rc11LG}$	
254	r254	Rc11LG dissociates to CG and Rc11UG	$\text{Rc11LG} \xrightleftharpoons{\text{Rc11LG}} \text{CG} + \text{Rc11UG}$	
255	r255	Cbl and Rc11UG bind yielding Rc11UL	$\text{Cbl} + \text{Rc11UG} \xrightleftharpoons{\text{Cbl, Rc11UG}} \text{Rc11UL}$	
256	r256	Rc11UL dissociates to Cbl and Rc11UG	$\text{Rc11UL} \xrightleftharpoons{\text{Rc11UL}} \text{Cbl} + \text{Rc11UG}$	
257	r257	Rc11UL transforms in (singly-bound -> doubly-bound) Rc11CC	$\text{Rc11UL} \xrightleftharpoons{\text{Rc11UL}} \text{Rc11CC}$	
258	r258	Rc11CC tranforms in (doubly-bound -> singly-bound) Rc11UL	$\text{Rc11CC} \xrightleftharpoons{\text{Rc11CC}} \text{Rc11UL}$	
259	r259	Rc11CG transforms in (Cbl bind Grb2 directly) Rc11CC	$\text{Rc11CG} \xrightleftharpoons{\text{Rc11CG}} \text{Rc11CC}$	
260	r260	Rc11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Rc11CG	$\text{Rc11CC} \xrightleftharpoons{\text{Rc11CC}} \text{Rc11CG}$	
261	r261	Grb2 and Rc11CG bind yielding Rc11LG	$\text{Grb2} + \text{Rc11CG} \xrightleftharpoons{\text{Grb2, Rc11CG}} \text{Rc11LG}$	
262	r262	Rc11LG dissociates to Grb2 and Rc11CG	$\text{Rc11LG} \xrightleftharpoons{\text{Rc11LG}} \text{Grb2} + \text{Rc11CG}$	

Nº	Id	Name	Reaction Equation	SBO
263	r263	Grb2 and Rc02UU bind yielding Rc02UG	$\text{Grb2} + \text{Rc02UU} \xrightleftharpoons{\text{Grb2, Rc02UU}} \text{Rc02UG}$	
264	r264	Rc02UG dissociates to Grb2 and Rc02UU	$\text{Rc02UG} \xrightleftharpoons{\text{Rc02UG}} \text{Grb2} + \text{Rc02UU}$	
265	r265	CG and Rc02UU bind yielding Rc02UL	$\text{CG} + \text{Rc02UU} \xrightleftharpoons{\text{CG, Rc02UU}} \text{Rc02UL}$	
266	r266	Rc02UL dissociates to CG and Rc02UU	$\text{Rc02UL} \xrightleftharpoons{\text{Rc02UL}} \text{CG} + \text{Rc02UU}$	
267	r267	Cbl and Rc02UG bind yielding Rc02UL	$\text{Cbl} + \text{Rc02UG} \xrightleftharpoons{\text{Cbl, Rc02UG}} \text{Rc02UL}$	
268	r268	Rc02UL dissociates to Cbl and Rc02UG	$\text{Rc02UL} \xrightleftharpoons{\text{Rc02UL}} \text{Cbl} + \text{Rc02UG}$	
269	r269	Cbl and Rc12UU bind yielding Rc12CU	$\text{Cbl} + \text{Rc12UU} \xrightleftharpoons{\text{Cbl, Rc12UU}} \text{Rc12CU}$	
270	r270	Rc12CU dissociates to Cbl and Rc12UU	$\text{Rc12CU} \xrightleftharpoons{\text{Rc12CU}} \text{Cbl} + \text{Rc12UU}$	
271	r271	CG and Rc12UU bind yielding Rc12LU	$\text{CG} + \text{Rc12UU} \xrightleftharpoons{\text{CG, Rc12UU}} \text{Rc12LU}$	
272	r272	Rc12LU dissociates to CG and Rc12UU	$\text{Rc12LU} \xrightleftharpoons{\text{Rc12LU}} \text{CG} + \text{Rc12UU}$	
273	r273	Grb2 and Rc12UU bind yielding Rc12UG	$\text{Grb2} + \text{Rc12UU} \xrightleftharpoons{\text{Grb2, Rc12UU}} \text{Rc12UG}$	
274	r274	Rc12UG dissociates to Grb2 and Rc12UU	$\text{Rc12UG} \xrightleftharpoons{\text{Rc12UG}} \text{Grb2} + \text{Rc12UU}$	
275	r275	CG and Rc12UU bind yielding Rc12UL	$\text{CG} + \text{Rc12UU} \xrightleftharpoons{\text{CG, Rc12UU}} \text{Rc12UL}$	
276	r276	Rc12UL dissociates to CG and Rc12UU	$\text{Rc12UL} \xrightleftharpoons{\text{Rc12UL}} \text{CG} + \text{Rc12UU}$	
277	r277	Grb2 and Rc12CU bind yielding Rc12LU	$\text{Grb2} + \text{Rc12CU} \xrightleftharpoons{\text{Grb2, Rc12CU}} \text{Rc12LU}$	
278	r278	Rc12LU dissociates to Grb2 and Rc12CU	$\text{Rc12LU} \xrightleftharpoons{\text{Rc12LU}} \text{Grb2} + \text{Rc12CU}$	
279	r279	Grb2 and Rc12CU bind yielding Rc12CG	$\text{Grb2} + \text{Rc12CU} \xrightleftharpoons{\text{Grb2, Rc12CU}} \text{Rc12CG}$	
280	r280	Rc12CG dissociates to Grb2 and Rc12CU	$\text{Rc12CG} \xrightleftharpoons{\text{Rc12CG}} \text{Grb2} + \text{Rc12CU}$	
281	r281	Grb2 and Rc12LU bind yielding Rc12LG	$\text{Grb2} + \text{Rc12LU} \xrightleftharpoons{\text{Grb2, Rc12LU}} \text{Rc12LG}$	

Nº	Id	Name	Reaction Equation	SBO
282	r282	Rc12LG dissociates to Grb2 and Rc12LU	$\text{Rc12LG} \xrightleftharpoons{\text{Rc12LG}} \text{Grb2} + \text{Rc12LU}$	
283	r283	Rc12LU transforms in (singly-bound -> doubly-bound) Rc12CC	$\text{Rc12LU} \xrightleftharpoons{\text{Rc12LU}} \text{Rc12CC}$	
284	r284	Rc12CC tranforms in (doubly-bound -> singly-bound) Rc12LU	$\text{Rc12CC} \xrightleftharpoons{\text{Rc12CC}} \text{Rc12LU}$	
285	r285	Cbl and Rc12UG bind yielding Rc12CG	$\text{Cbl} + \text{Rc12UG} \xrightleftharpoons{\text{Cbl, Rc12UG}} \text{Rc12CG}$	
286	r286	Rc12CG dissociates to Cbl and Rc12UG	$\text{Rc12CG} \xrightleftharpoons{\text{Rc12CG}} \text{Cbl} + \text{Rc12UG}$	
287	r287	CG and Rc12UG bind yielding Rc12LG	$\text{CG} + \text{Rc12UG} \xrightleftharpoons{\text{CG, Rc12UG}} \text{Rc12LG}$	
288	r288	Rc12LG dissociates to CG and Rc12UG	$\text{Rc12LG} \xrightleftharpoons{\text{Rc12LG}} \text{CG} + \text{Rc12UG}$	
289	r289	Cbl and Rc12UG bind yielding Rc12UL	$\text{Cbl} + \text{Rc12UG} \xrightleftharpoons{\text{Cbl, Rc12UG}} \text{Rc12UL}$	
290	r290	Rc12UL dissociates to Cbl and Rc12UG	$\text{Rc12UL} \xrightleftharpoons{\text{Rc12UL}} \text{Cbl} + \text{Rc12UG}$	
291	r291	Rc12UL transforms in (singly-bound -> doubly-bound) Rc12CC	$\text{Rc12UL} \xrightleftharpoons{\text{Rc12UL}} \text{Rc12CC}$	
292	r292	Rc12CC tranforms in (doubly-bound -> singly-bound) Rc12UL	$\text{Rc12CC} \xrightleftharpoons{\text{Rc12CC}} \text{Rc12UL}$	
293	r293	Rc12CG transforms in (Cbl bind Grb2 directly) Rc12CC	$\text{Rc12CG} \xrightleftharpoons{\text{Rc12CG}} \text{Rc12CC}$	
294	r294	Rc12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Rc12CG	$\text{Rc12CC} \xrightleftharpoons{\text{Rc12CC}} \text{Rc12CG}$	
295	r295	Grb2 and Rc12CG bind yielding Rc12LG	$\text{Grb2} + \text{Rc12CG} \xrightleftharpoons{\text{Grb2, Rc12CG}} \text{Rc12LG}$	
296	r296	Rc12LG dissociates to Grb2 and Rc12CG	$\text{Rc12LG} \xrightleftharpoons{\text{Rc12LG}} \text{Grb2} + \text{Rc12CG}$	

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297	r297	Cbl and RcL10UU bind yielding RcL10CU	$\text{Cbl} + \text{RcL10UU} \xrightleftharpoons{\text{Cbl, RcL10UU}} \text{RcL10CU}$	
298	r298	RcL10CU dissociates to Cbl and RcL10UU	$\text{RcL10CU} \xrightleftharpoons{\text{RcL10CU}} \text{Cbl} + \text{RcL10UU}$	
299	r299	CG and RcL10UU bind yielding RcL10LU	$\text{CG} + \text{RcL10UU} \xrightleftharpoons{\text{CG, RcL10UU}} \text{RcL10LU}$	
300	r300	RcL10LU dissociates to CG and RcL10UU	$\text{RcL10LU} \xrightleftharpoons{\text{RcL10LU}} \text{CG} + \text{RcL10UU}$	
301	r301	Grb2 and RcL10CU bind yielding RcL10LU	$\text{Grb2} + \text{RcL10CU} \xrightleftharpoons{\text{Grb2, RcL10CU}} \text{RcL10LU}$	
302	r302	RcL10LU dissociates to Grb2 and RcL10CU	$\text{RcL10LU} \xrightleftharpoons{\text{RcL10LU}} \text{Grb2} + \text{RcL10CU}$	
303	r303	Grb2 and RcL01UU bind yielding RcL01UG	$\text{Grb2} + \text{RcL01UU} \xrightleftharpoons{\text{Grb2, RcL01UU}} \text{RcL01UG}$	
304	r304	RcL01UG dissociates to Grb2 and RcL01UU	$\text{RcL01UG} \xrightleftharpoons{\text{RcL01UG}} \text{Grb2} + \text{RcL01UU}$	
305	r305	CG and RcL01UU bind yielding RcL01UL	$\text{CG} + \text{RcL01UU} \xrightleftharpoons{\text{CG, RcL01UU}} \text{RcL01UL}$	
306	r306	RcL01UL dissociates to CG and RcL01UU	$\text{RcL01UL} \xrightleftharpoons{\text{RcL01UL}} \text{CG} + \text{RcL01UU}$	
307	r307	Cbl and RcL01UG bind yielding RcL01UL	$\text{Cbl} + \text{RcL01UG} \xrightleftharpoons{\text{Cbl, RcL01UG}} \text{RcL01UL}$	
308	r308	RcL01UL dissociates to Cbl and RcL01UG	$\text{RcL01UL} \xrightleftharpoons{\text{RcL01UL}} \text{Cbl} + \text{RcL01UG}$	
309	r309	Cbl and RcL11UU bind yielding RcL11CU	$\text{Cbl} + \text{RcL11UU} \xrightleftharpoons{\text{Cbl, RcL11UU}} \text{RcL11CU}$	
310	r310	RcL11CU dissociates to Cbl and RcL11UU	$\text{RcL11CU} \xrightleftharpoons{\text{RcL11CU}} \text{Cbl} + \text{RcL11UU}$	
311	r311	CG and RcL11UU bind yielding RcL11LU	$\text{CG} + \text{RcL11UU} \xrightleftharpoons{\text{CG, RcL11UU}} \text{RcL11LU}$	
312	r312	RcL11LU dissociates to CG and RcL11UU	$\text{RcL11LU} \xrightleftharpoons{\text{RcL11LU}} \text{CG} + \text{RcL11UU}$	
313	r313	Grb2 and RcL11UU bind yielding RcL11UG	$\text{Grb2} + \text{RcL11UU} \xrightleftharpoons{\text{Grb2, RcL11UU}} \text{RcL11UG}$	
314	r314	RcL11UG dissociates to Grb2 and RcL11UU	$\text{RcL11UG} \xrightleftharpoons{\text{RcL11UG}} \text{Grb2} + \text{RcL11UU}$	
315	r315	CG and RcL11UU bind yielding RcL11UL	$\text{CG} + \text{RcL11UU} \xrightleftharpoons{\text{CG, RcL11UU}} \text{RcL11UL}$	

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316	r316	RcL11UL dissociates to CG and RcL11UU	$\text{RcL11UL} \xrightleftharpoons{\text{RcL11UL}} \text{CG} + \text{RcL11UU}$	
317	r317	Grb2 and RcL11CU bind yielding RcL11LU	$\text{Grb2} + \text{RcL11CU} \xrightleftharpoons{\text{Grb2, RcL11CU}} \text{RcL11LU}$	
318	r318	RcL11LU dissociates to Grb2 and RcL11CU	$\text{RcL11LU} \xrightleftharpoons{\text{RcL11LU}} \text{Grb2} + \text{RcL11CU}$	
319	r319	Grb2 and RcL11CU bind yielding RcL11CG	$\text{Grb2} + \text{RcL11CU} \xrightleftharpoons{\text{Grb2, RcL11CU}} \text{RcL11CG}$	
320	r320	RcL11CG dissociates to Grb2 and RcL11CU	$\text{RcL11CG} \xrightleftharpoons{\text{RcL11CG}} \text{Grb2} + \text{RcL11CU}$	
321	r321	Grb2 and RcL11LU bind yielding RcL11LG	$\text{Grb2} + \text{RcL11LU} \xrightleftharpoons{\text{Grb2, RcL11LU}} \text{RcL11LG}$	
322	r322	RcL11LG dissociates to Grb2 and RcL11LU	$\text{RcL11LG} \xrightleftharpoons{\text{RcL11LG}} \text{Grb2} + \text{RcL11LU}$	
323	r323	RcL11LU transforms in (singly-bound -> doubly-bound) RcL11CC	$\text{RcL11LU} \xrightleftharpoons{\text{RcL11LU}} \text{RcL11CC}$	
324	r324	RcL11CC tranforms in (doubly-bound -> singly-bound) RcL11LU	$\text{RcL11CC} \xrightleftharpoons{\text{RcL11CC}} \text{RcL11LU}$	
325	r325	Cbl and RcL11UG bind yielding RcL11CG	$\text{Cbl} + \text{RcL11UG} \xrightleftharpoons{\text{Cbl, RcL11UG}} \text{RcL11CG}$	
326	r326	RcL11CG dissociates to Cbl and RcL11UG	$\text{RcL11CG} \xrightleftharpoons{\text{RcL11CG}} \text{Cbl} + \text{RcL11UG}$	
327	r327	CG and RcL11UG bind yielding RcL11LG	$\text{CG} + \text{RcL11UG} \xrightleftharpoons{\text{CG, RcL11UG}} \text{RcL11LG}$	
328	r328	RcL11LG dissociates to CG and RcL11UG	$\text{RcL11LG} \xrightleftharpoons{\text{RcL11LG}} \text{CG} + \text{RcL11UG}$	
329	r329	Cbl and RcL11UG bind yielding RcL11UL	$\text{Cbl} + \text{RcL11UG} \xrightleftharpoons{\text{Cbl, RcL11UG}} \text{RcL11UL}$	
330	r330	RcL11UL dissociates to Cbl and RcL11UG	$\text{RcL11UL} \xrightleftharpoons{\text{RcL11UL}} \text{Cbl} + \text{RcL11UG}$	
331	r331	RcL11UL transforms in (singly-bound -> doubly-bound) RcL11CC	$\text{RcL11UL} \xrightleftharpoons{\text{RcL11UL}} \text{RcL11CC}$	
332	r332	RcL11CC tranforms in (doubly-bound -> singly-bound) RcL11UL	$\text{RcL11CC} \xrightleftharpoons{\text{RcL11CC}} \text{RcL11UL}$	

Nº	Id	Name	Reaction Equation	SBO
333	r333	RcL11CG transforms in (Cbl bind Grb2 directly) RcL11CC	$\text{RcL11CG} \xrightleftharpoons{\text{RcL11CG}} \text{RcL11CC}$	
334	r334	RcL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RcL11CG	$\text{RcL11CC} \xrightleftharpoons{\text{RcL11CC}} \text{RcL11CG}$	
335	r335	Grb2 and RcL11CG bind yielding RcL11LG	$\text{Grb2} + \text{RcL11CG} \xrightleftharpoons{\text{Grb2, RcL11CG}} \text{RcL11LG}$	
336	r336	RcL11LG dissociates to Grb2 and RcL11CG	$\text{RcL11LG} \xrightleftharpoons{\text{RcL11LG}} \text{Grb2} + \text{RcL11CG}$	
337	r337	Grb2 and RcL02UU bind yielding RcL02UG	$\text{Grb2} + \text{RcL02UU} \xrightleftharpoons{\text{Grb2, RcL02UU}} \text{RcL02UG}$	
338	r338	RcL02UG dissociates to Grb2 and RcL02UU	$\text{RcL02UG} \xrightleftharpoons{\text{RcL02UG}} \text{Grb2} + \text{RcL02UU}$	
339	r339	CG and RcL02UU bind yielding RcL02UL	$\text{CG} + \text{RcL02UU} \xrightleftharpoons{\text{CG, RcL02UU}} \text{RcL02UL}$	
340	r340	RcL02UL dissociates to CG and RcL02UU	$\text{RcL02UL} \xrightleftharpoons{\text{RcL02UL}} \text{CG} + \text{RcL02UU}$	
341	r341	Cbl and RcL02UG bind yielding RcL02UL	$\text{Cbl} + \text{RcL02UG} \xrightleftharpoons{\text{Cbl, RcL02UG}} \text{RcL02UL}$	
342	r342	RcL02UL dissociates to Cbl and RcL02UG	$\text{RcL02UL} \xrightleftharpoons{\text{RcL02UL}} \text{Cbl} + \text{RcL02UG}$	
343	r343	Cbl and RcL12UU bind yielding RcL12CU	$\text{Cbl} + \text{RcL12UU} \xrightleftharpoons{\text{Cbl, RcL12UU}} \text{RcL12CU}$	
344	r344	RcL12CU dissociates to Cbl and RcL12UU	$\text{RcL12CU} \xrightleftharpoons{\text{RcL12CU}} \text{Cbl} + \text{RcL12UU}$	
345	r345	CG and RcL12UU bind yielding RcL12LU	$\text{CG} + \text{RcL12UU} \xrightleftharpoons{\text{CG, RcL12UU}} \text{RcL12LU}$	
346	r346	RcL12LU dissociates to CG and RcL12UU	$\text{RcL12LU} \xrightleftharpoons{\text{RcL12LU}} \text{CG} + \text{RcL12UU}$	
347	r347	Grb2 and RcL12UU bind yielding RcL12UG	$\text{Grb2} + \text{RcL12UU} \xrightleftharpoons{\text{Grb2, RcL12UU}} \text{RcL12UG}$	
348	r348	RcL12UG dissociates to Grb2 and RcL12UU	$\text{RcL12UG} \xrightleftharpoons{\text{RcL12UG}} \text{Grb2} + \text{RcL12UU}$	
349	r349	CG and RcL12UU bind yielding RcL12UL	$\text{CG} + \text{RcL12UU} \xrightleftharpoons{\text{CG, RcL12UU}} \text{RcL12UL}$	

Nº	Id	Name	Reaction Equation	SBO
350	r350	RcL12UL dissociates to CG and RcL12UU	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{CG} + \text{RcL12UU}$	
351	r351	Grb2 and RcL12CU bind yielding RcL12LU	$\text{Grb2} + \text{RcL12CU} \xrightleftharpoons{\text{Grb2, RcL12CU}} \text{RcL12LU}$	
352	r352	RcL12LU dissociates to Grb2 and RcL12CU	$\text{RcL12LU} \xrightleftharpoons{\text{RcL12LU}} \text{Grb2} + \text{RcL12CU}$	
353	r353	Grb2 and RcL12CU bind yielding RcL12CG	$\text{Grb2} + \text{RcL12CU} \xrightleftharpoons{\text{Grb2, RcL12CU}} \text{RcL12CG}$	
354	r354	RcL12CG dissociates to Grb2 and RcL12CU	$\text{RcL12CG} \xrightleftharpoons{\text{RcL12CG}} \text{Grb2} + \text{RcL12CU}$	
355	r355	Grb2 and RcL12LU bind yielding RcL12LG	$\text{Grb2} + \text{RcL12LU} \xrightleftharpoons{\text{Grb2, RcL12LU}} \text{RcL12LG}$	
356	r356	RcL12LG dissociates to Grb2 and RcL12LU	$\text{RcL12LG} \xrightleftharpoons{\text{RcL12LG}} \text{Grb2} + \text{RcL12LU}$	
357	r357	RcL12LU transforms in (singly-bound -> doubly-bound) RcL12CC	$\text{RcL12LU} \xrightleftharpoons{\text{RcL12LU}} \text{RcL12CC}$	
358	r358	RcL12CC tranforms in (doubly-bound -> singly-bound) RcL12LU	$\text{RcL12CC} \xrightleftharpoons{\text{RcL12CC}} \text{RcL12LU}$	
359	r359	Cbl and RcL12UG bind yielding RcL12CG	$\text{Cbl} + \text{RcL12UG} \xrightleftharpoons{\text{Cbl, RcL12UG}} \text{RcL12CG}$	
360	r360	RcL12CG dissociates to Cbl and RcL12UG	$\text{RcL12CG} \xrightleftharpoons{\text{RcL12CG}} \text{Cbl} + \text{RcL12UG}$	
361	r361	CG and RcL12UG bind yielding RcL12LG	$\text{CG} + \text{RcL12UG} \xrightleftharpoons{\text{CG, RcL12UG}} \text{RcL12LG}$	
362	r362	RcL12LG dissociates to CG and RcL12UG	$\text{RcL12LG} \xrightleftharpoons{\text{RcL12LG}} \text{CG} + \text{RcL12UG}$	
363	r363	Cbl and RcL12UG bind yielding RcL12UL	$\text{Cbl} + \text{RcL12UG} \xrightleftharpoons{\text{Cbl, RcL12UG}} \text{RcL12UL}$	
364	r364	RcL12UL dissociates to Cbl and RcL12UG	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{Cbl} + \text{RcL12UG}$	
365	r365	RcL12UL transforms in (singly-bound -> doubly-bound) RcL12CC	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{RcL12CC}$	
366	r366	RcL12CC tranforms in (doubly-bound -> singly-bound) RcL12UL	$\text{RcL12CC} \xrightleftharpoons{\text{RcL12CC}} \text{RcL12UL}$	

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367	r367	RcL12CG transforms in (Cbl bind Grb2 directly) RcL12CC	$\text{RcL12CG} \xrightleftharpoons{\text{RcL12CG}} \text{RcL12CC}$	
368	r368	RcL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RcL12CG	$\text{RcL12CC} \xrightleftharpoons{\text{RcL12CC}} \text{RcL12CG}$	
369	r369	Grb2 and RcL12CG bind yielding RcL12LG	$\text{Grb2} + \text{RcL12CG} \xrightleftharpoons{\text{Grb2, RcL12CG}} \text{RcL12LG}$	
370	r370	RcL12LG dissociates to Grb2 and RcL12CG	$\text{RcL12LG} \xrightleftharpoons{\text{RcL12LG}} \text{Grb2} + \text{RcL12CG}$	
371	r371	Cbl and R10UU bind yielding R10CU	$\text{Cbl} + \text{R10UU} \xrightleftharpoons{\text{Cbl, R10UU}} \text{R10CU}$	
372	r372	R10CU dissociates to Cbl and R10UU	$\text{R10CU} \xrightleftharpoons{\text{R10CU}} \text{Cbl} + \text{R10UU}$	
373	r373	CG and R10UU bind yielding R10LU	$\text{CG} + \text{R10UU} \xrightleftharpoons{\text{CG, R10UU}} \text{R10LU}$	
374	r374	R10LU dissociates to CG and R10UU	$\text{R10LU} \xrightleftharpoons{\text{R10LU}} \text{CG} + \text{R10UU}$	
375	r375	Grb2 and R10CU bind yielding R10LU	$\text{Grb2} + \text{R10CU} \xrightleftharpoons{\text{Grb2, R10CU}} \text{R10LU}$	
376	r376	R10LU dissociates to Grb2 and R10CU	$\text{R10LU} \xrightleftharpoons{\text{R10LU}} \text{Grb2} + \text{R10CU}$	
377	r377	Grb2 and R01UU bind yielding R01UG	$\text{Grb2} + \text{R01UU} \xrightleftharpoons{\text{Grb2, R01UU}} \text{R01UG}$	
378	r378	R01UG dissociates to Grb2 and R01UU	$\text{R01UG} \xrightleftharpoons{\text{R01UG}} \text{Grb2} + \text{R01UU}$	
379	r379	CG and R01UU bind yielding R01UL	$\text{CG} + \text{R01UU} \xrightleftharpoons{\text{CG, R01UU}} \text{R01UL}$	
380	r380	R01UL dissociates to CG and R01UU	$\text{R01UL} \xrightleftharpoons{\text{R01UL}} \text{CG} + \text{R01UU}$	
381	r381	Cbl and R01UG bind yielding R01UL	$\text{Cbl} + \text{R01UG} \xrightleftharpoons{\text{Cbl, R01UG}} \text{R01UL}$	
382	r382	R01UL dissociates to Cbl and R01UG	$\text{R01UL} \xrightleftharpoons{\text{R01UL}} \text{Cbl} + \text{R01UG}$	
383	r383	Cbl and R11UU bind yielding R11CU	$\text{Cbl} + \text{R11UU} \xrightleftharpoons{\text{Cbl, R11UU}} \text{R11CU}$	

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384	r384	R11CU dissociates to Cbl and R11UU	$R11CU \xrightleftharpoons{R11CU} Cbl + R11UU$	
385	r385	CG and R11UU bind yielding R11LU	$CG + R11UU \xrightleftharpoons{CG, R11UU} R11LU$	
386	r386	R11LU dissociates to CG and R11UU	$R11LU \xrightleftharpoons{R11LU} CG + R11UU$	
387	r387	Grb2 and R11UU bind yielding R11UG	$Grb2 + R11UU \xrightleftharpoons{Grb2, R11UU} R11UG$	
388	r388	R11UG dissociates to Grb2 and R11UU	$R11UG \xrightleftharpoons{R11UG} Grb2 + R11UU$	
389	r389	CG and R11UU bind yielding R11UL	$CG + R11UU \xrightleftharpoons{CG, R11UU} R11UL$	
390	r390	R11UL dissociates to CG and R11UU	$R11UL \xrightleftharpoons{R11UL} CG + R11UU$	
391	r391	Grb2 and R11CU bind yielding R11LU	$Grb2 + R11CU \xrightleftharpoons{Grb2, R11CU} R11LU$	
392	r392	R11LU dissociates to Grb2 and R11CU	$R11LU \xrightleftharpoons{R11LU} Grb2 + R11CU$	
393	r393	Grb2 and R11CU bind yielding R11CG	$Grb2 + R11CU \xrightleftharpoons{Grb2, R11CU} R11CG$	
394	r394	R11CG dissociates to Grb2 and R11CU	$R11CG \xrightleftharpoons{R11CG} Grb2 + R11CU$	
395	r395	Grb2 and R11LU bind yielding R11LG	$Grb2 + R11LU \xrightleftharpoons{Grb2, R11LU} R11LG$	
396	r396	R11LG dissociates to Grb2 and R11LU	$R11LG \xrightleftharpoons{R11LG} Grb2 + R11LU$	
397	r397	R11LU transforms in (singly-bound doubly-bound) R11CC ->	$R11LU \xrightleftharpoons{R11LU} R11CC$	
398	r398	R11CC tranforms in (doubly-bound singly-bound) R11LU ->	$R11CC \xrightleftharpoons{R11CC} R11LU$	
399	r399	Cbl and R11UG bind yielding R11CG	$Cbl + R11UG \xrightleftharpoons{Cbl, R11UG} R11CG$	
400	r400	R11CG dissociates to Cbl and R11UG	$R11CG \xrightleftharpoons{R11CG} Cbl + R11UG$	
401	r401	CG and R11UG bind yielding R11LG	$CG + R11UG \xrightleftharpoons{CG, R11UG} R11LG$	

Nº	Id	Name	Reaction Equation	SBO
402	r402	R11LG dissociates to CG and R11UG	$R11LG \xrightleftharpoons{R11LG} CG + R11UG$	
403	r403	Cbl and R11UG bind yielding R11UL	$Cbl + R11UG \xrightleftharpoons{Cbl, R11UG} R11UL$	
404	r404	R11UL dissociates to Cbl and R11UG	$R11UL \xrightleftharpoons{R11UL} Cbl + R11UG$	
405	r405	R11UL transforms in (singly-bound -> doubly-bound) R11CC	$R11UL \xrightleftharpoons{R11UL} R11CC$	
406	r406	R11CC tranforms in (doubly-bound -> singly-bound) R11UL	$R11CC \xrightleftharpoons{R11CC} R11UL$	
407	r407	R11CG transforms in (Cbl bind Grb2 directly) R11CC	$R11CG \xrightleftharpoons{R11CG} R11CC$	
408	r408	R11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) R11CG	$R11CC \xrightleftharpoons{R11CC} R11CG$	
409	r409	Grb2 and R11CG bind yielding R11LG	$Grb2 + R11CG \xrightleftharpoons{Grb2, R11CG} R11LG$	
410	r410	R11LG dissociates to Grb2 and R11CG	$R11LG \xrightleftharpoons{R11LG} Grb2 + R11CG$	
411	r411	Grb2 and R02UU bind yielding R02UG	$Grb2 + R02UU \xrightleftharpoons{Grb2, R02UU} R02UG$	
412	r412	R02UG dissociates to Grb2 and R02UU	$R02UG \xrightleftharpoons{R02UG} Grb2 + R02UU$	
413	r413	CG and R02UU bind yielding R02UL	$CG + R02UU \xrightleftharpoons{CG, R02UU} R02UL$	
414	r414	R02UL dissociates to CG and R02UU	$R02UL \xrightleftharpoons{R02UL} CG + R02UU$	
415	r415	Cbl and R02UG bind yielding R02UL	$Cbl + R02UG \xrightleftharpoons{Cbl, R02UG} R02UL$	
416	r416	R02UL dissociates to Cbl and R02UG	$R02UL \xrightleftharpoons{R02UL} Cbl + R02UG$	
417	r417	Cbl and R12UU bind yielding R12CU	$Cbl + R12UU \xrightleftharpoons{Cbl, R12UU} R12CU$	
418	r418	R12CU dissociates to Cbl and R12UU	$R12CU \xrightleftharpoons{R12CU} Cbl + R12UU$	

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419	r419	CG and R12UU bind yielding R12LU	$CG + R12UU \xrightleftharpoons{CG, R12UU} R12LU$	
420	r420	R12LU dissociates to CG and R12UU	$R12LU \xrightleftharpoons{R12LU} CG + R12UU$	
421	r421	Grb2 and R12UU bind yielding R12UG	$Grb2 + R12UU \xrightleftharpoons{Grb2, R12UU} R12UG$	
422	r422	R12UG dissociates to Grb2 and R12UU	$R12UG \xrightleftharpoons{R12UG} Grb2 + R12UU$	
423	r423	CG and R12UU bind yielding R12UL	$CG + R12UU \xrightleftharpoons{CG, R12UU} R12UL$	
424	r424	R12UL dissociates to CG and R12UU	$R12UL \xrightleftharpoons{R12UL} CG + R12UU$	
425	r425	Grb2 and R12CU bind yielding R12LU	$Grb2 + R12CU \xrightleftharpoons{Grb2, R12CU} R12LU$	
426	r426	R12LU dissociates to Grb2 and R12CU	$R12LU \xrightleftharpoons{R12LU} Grb2 + R12CU$	
427	r427	Grb2 and R12CU bind yielding R12CG	$Grb2 + R12CU \xrightleftharpoons{Grb2, R12CU} R12CG$	
428	r428	R12CG dissociates to Grb2 and R12CU	$R12CG \xrightleftharpoons{R12CG} Grb2 + R12CU$	
429	r429	Grb2 and R12LU bind yielding R12LG	$Grb2 + R12LU \xrightleftharpoons{Grb2, R12LU} R12LG$	
430	r430	R12LG dissociates to Grb2 and R12LU	$R12LG \xrightleftharpoons{R12LG} Grb2 + R12LU$	
431	r431	R12LU transforms in (singly-bound doubly-bound) R12CC	$R12LU \xrightleftharpoons{R12LU} R12CC$	->
432	r432	R12CC tranforms in (doubly-bound singly-bound) R12LU	$R12CC \xrightleftharpoons{R12CC} R12LU$	->
433	r433	Cbl and R12UG bind yielding R12CG	$Cbl + R12UG \xrightleftharpoons{Cbl, R12UG} R12CG$	
434	r434	R12CG dissociates to Cbl and R12UG	$R12CG \xrightleftharpoons{R12CG} Cbl + R12UG$	
435	r435	CG and R12UG bind yielding R12LG	$CG + R12UG \xrightleftharpoons{CG, R12UG} R12LG$	
436	r436	R12LG dissociates to CG and R12UG	$R12LG \xrightleftharpoons{R12LG} CG + R12UG$	

Nº	Id	Name	Reaction Equation	SBO
437	r437	Cbl and R12UG bind yielding R12UL	$\text{Cbl} + \text{R12UG} \xrightleftharpoons{\text{Cbl, R12UG}} \text{R12UL}$	
438	r438	R12UL dissociates to Cbl and R12UG	$\text{R12UL} \xrightleftharpoons{\text{R12UL}} \text{Cbl} + \text{R12UG}$	
439	r439	R12UL transforms in (singly-bound -> doubly-bound) R12CC	$\text{R12UL} \xrightleftharpoons{\text{R12UL}} \text{R12CC}$	
440	r440	R12CC tranforms in (doubly-bound -> singly-bound) R12UL	$\text{R12CC} \xrightleftharpoons{\text{R12CC}} \text{R12UL}$	
441	r441	R12CG transforms in (Cbl bind Grb2 directly) R12CC	$\text{R12CG} \xrightleftharpoons{\text{R12CG}} \text{R12CC}$	
442	r442	R12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) R12CG	$\text{R12CC} \xrightleftharpoons{\text{R12CC}} \text{R12CG}$	
443	r443	Grb2 and R12CG bind yielding R12LG	$\text{Grb2} + \text{R12CG} \xrightleftharpoons{\text{Grb2, R12CG}} \text{R12LG}$	
444	r444	R12LG dissociates to Grb2 and R12CG	$\text{R12LG} \xrightleftharpoons{\text{R12LG}} \text{Grb2} + \text{R12CG}$	
445	r445	Cbl and RL10UU bind yielding RL10CU	$\text{Cbl} + \text{RL10UU} \xrightleftharpoons{\text{Cbl, RL10UU}} \text{RL10CU}$	
446	r446	RL10CU dissociates to Cbl and RL10UU	$\text{RL10CU} \xrightleftharpoons{\text{RL10CU}} \text{Cbl} + \text{RL10UU}$	
447	r447	CG and RL10UU bind yielding RL10LU	$\text{CG} + \text{RL10UU} \xrightleftharpoons{\text{CG, RL10UU}} \text{RL10LU}$	
448	r448	RL10LU dissociates to CG and RL10UU	$\text{RL10LU} \xrightleftharpoons{\text{RL10LU}} \text{CG} + \text{RL10UU}$	
449	r449	Grb2 and RL10CU bind yielding RL10LU	$\text{Grb2} + \text{RL10CU} \xrightleftharpoons{\text{Grb2, RL10CU}} \text{RL10LU}$	
450	r450	RL10LU dissociates to Grb2 and RL10CU	$\text{RL10LU} \xrightleftharpoons{\text{RL10LU}} \text{Grb2} + \text{RL10CU}$	
451	r451	Grb2 and RL01UU bind yielding RL01UG	$\text{Grb2} + \text{RL01UU} \xrightleftharpoons{\text{Grb2, RL01UU}} \text{RL01UG}$	
452	r452	RL01UG dissociates to Grb2 and RL01UU	$\text{RL01UG} \xrightleftharpoons{\text{RL01UG}} \text{Grb2} + \text{RL01UU}$	
453	r453	CG and RL01UU bind yielding RL01UL	$\text{CG} + \text{RL01UU} \xrightleftharpoons{\text{CG, RL01UU}} \text{RL01UL}$	

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454	r454	RL01UL dissociates to CG and RL01UU	$\text{RL01UL} \xrightleftharpoons{\text{RL01UL}} \text{CG} + \text{RL01UU}$	
455	r455	Cbl and RL01UG bind yielding RL01UL	$\text{Cbl} + \text{RL01UG} \xrightleftharpoons{\text{Cbl, RL01UG}} \text{RL01UL}$	
456	r456	RL01UL dissociates to Cbl and RL01UG	$\text{RL01UL} \xrightleftharpoons{\text{RL01UL}} \text{Cbl} + \text{RL01UG}$	
457	r457	Cbl and RL11UU bind yielding RL11CU	$\text{Cbl} + \text{RL11UU} \xrightleftharpoons{\text{Cbl, RL11UU}} \text{RL11CU}$	
458	r458	RL11CU dissociates to Cbl and RL11UU	$\text{RL11CU} \xrightleftharpoons{\text{RL11CU}} \text{Cbl} + \text{RL11UU}$	
459	r459	CG and RL11UU bind yielding RL11LU	$\text{CG} + \text{RL11UU} \xrightleftharpoons{\text{CG, RL11UU}} \text{RL11LU}$	
460	r460	RL11LU dissociates to CG and RL11UU	$\text{RL11LU} \xrightleftharpoons{\text{RL11LU}} \text{CG} + \text{RL11UU}$	
461	r461	Grb2 and RL11UU bind yielding RL11UG	$\text{Grb2} + \text{RL11UU} \xrightleftharpoons{\text{Grb2, RL11UU}} \text{RL11UG}$	
462	r462	RL11UG dissociates to Grb2 and RL11UU	$\text{RL11UG} \xrightleftharpoons{\text{RL11UG}} \text{Grb2} + \text{RL11UU}$	
463	r463	CG and RL11UU bind yielding RL11UL	$\text{CG} + \text{RL11UU} \xrightleftharpoons{\text{CG, RL11UU}} \text{RL11UL}$	
464	r464	RL11UL dissociates to CG and RL11UU	$\text{RL11UL} \xrightleftharpoons{\text{RL11UL}} \text{CG} + \text{RL11UU}$	
465	r465	Grb2 and RL11CU bind yielding RL11LU	$\text{Grb2} + \text{RL11CU} \xrightleftharpoons{\text{Grb2, RL11CU}} \text{RL11LU}$	
466	r466	RL11LU dissociates to Grb2 and RL11CU	$\text{RL11LU} \xrightleftharpoons{\text{RL11LU}} \text{Grb2} + \text{RL11CU}$	
467	r467	Grb2 and RL11CU bind yielding RL11CG	$\text{Grb2} + \text{RL11CU} \xrightleftharpoons{\text{Grb2, RL11CU}} \text{RL11CG}$	
468	r468	RL11CG dissociates to Grb2 and RL11CU	$\text{RL11CG} \xrightleftharpoons{\text{RL11CG}} \text{Grb2} + \text{RL11CU}$	
469	r469	Grb2 and RL11LU bind yielding RL11LG	$\text{Grb2} + \text{RL11LU} \xrightleftharpoons{\text{Grb2, RL11LU}} \text{RL11LG}$	
470	r470	RL11LG dissociates to Grb2 and RL11LU	$\text{RL11LG} \xrightleftharpoons{\text{RL11LG}} \text{Grb2} + \text{RL11LU}$	
471	r471	RL11LU transforms in (singly-bound -> doubly-bound) RL11CC	$\text{RL11LU} \xrightleftharpoons{\text{RL11LU}} \text{RL11CC}$	

Nº	Id	Name	Reaction Equation	SBO
472	r472	RL11CC tranforms in (doubly-bound -> singly-bound) RL11LU	$RL11CC \xrightleftharpoons{RL11CC} RL11LU$	
473	r473	Cbl and RL11UG bind yielding RL11CG	$Cbl + RL11UG \xrightleftharpoons{Cbl, RL11UG} RL11CG$	
474	r474	RL11CG dissociates to Cbl and RL11UG	$RL11CG \xrightleftharpoons{RL11CG} Cbl + RL11UG$	
475	r475	CG and RL11UG bind yielding RL11LG	$CG + RL11UG \xrightleftharpoons{CG, RL11UG} RL11LG$	
476	r476	RL11LG dissociates to CG and RL11UG	$RL11LG \xrightleftharpoons{RL11LG} CG + RL11UG$	
477	r477	Cbl and RL11UG bind yielding RL11UL	$Cbl + RL11UG \xrightleftharpoons{Cbl, RL11UG} RL11UL$	
478	r478	RL11UL dissociates to Cbl and RL11UG	$RL11UL \xrightleftharpoons{RL11UL} Cbl + RL11UG$	
479	r479	RL11UL transforms in (singly-bound -> doubly-bound) RL11CC	$RL11UL \xrightleftharpoons{RL11UL} RL11CC$	
480	r480	RL11CC tranforms in (doubly-bound -> singly-bound) RL11UL	$RL11CC \xrightleftharpoons{RL11CC} RL11UL$	
481	r481	RL11CG transforms in (Cbl bind Grb2 directly) RL11CC	$RL11CG \xrightleftharpoons{RL11CG} RL11CC$	
482	r482	RL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RL11CG	$RL11CC \xrightleftharpoons{RL11CC} RL11CG$	
483	r483	Grb2 and RL11CG bind yielding RL11LG	$Grb2 + RL11CG \xrightleftharpoons{Grb2, RL11CG} RL11LG$	
484	r484	RL11LG dissociates to Grb2 and RL11CG	$RL11LG \xrightleftharpoons{RL11LG} Grb2 + RL11CG$	
485	r485	Grb2 and RL02UU bind yielding RL02UG	$Grb2 + RL02UU \xrightleftharpoons{Grb2, RL02UU} RL02UG$	
486	r486	RL02UG dissociates to Grb2 and RL02UU	$RL02UG \xrightleftharpoons{RL02UG} Grb2 + RL02UU$	
487	r487	CG and RL02UU bind yielding RL02UL	$CG + RL02UU \xrightleftharpoons{CG, RL02UU} RL02UL$	

Nº	Id	Name	Reaction Equation	SBO
488	r488	RL02UL dissociates to CG and RL02UU	$\text{RL02UL} \xrightleftharpoons{\text{RL02UL}} \text{CG} + \text{RL02UU}$	
489	r489	Cbl and RL02UG bind yielding RL02UL	$\text{Cbl} + \text{RL02UG} \xrightleftharpoons{\text{Cbl, RL02UG}} \text{RL02UL}$	
490	r490	RL02UL dissociates to Cbl and RL02UG	$\text{RL02UL} \xrightleftharpoons{\text{RL02UL}} \text{Cbl} + \text{RL02UG}$	
491	r491	Cbl and RL12UU bind yielding RL12CU	$\text{Cbl} + \text{RL12UU} \xrightleftharpoons{\text{Cbl, RL12UU}} \text{RL12CU}$	
492	r492	RL12CU dissociates to Cbl and RL12UU	$\text{RL12CU} \xrightleftharpoons{\text{RL12CU}} \text{Cbl} + \text{RL12UU}$	
493	r493	CG and RL12UU bind yielding RL12LU	$\text{CG} + \text{RL12UU} \xrightleftharpoons{\text{CG, RL12UU}} \text{RL12LU}$	
494	r494	RL12LU dissociates to CG and RL12UU	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{CG} + \text{RL12UU}$	
495	r495	Grb2 and RL12UU bind yielding RL12UG	$\text{Grb2} + \text{RL12UU} \xrightleftharpoons{\text{Grb2, RL12UU}} \text{RL12UG}$	
496	r496	RL12UG dissociates to Grb2 and RL12UU	$\text{RL12UG} \xrightleftharpoons{\text{RL12UG}} \text{Grb2} + \text{RL12UU}$	
497	r497	CG and RL12UU bind yielding RL12UL	$\text{CG} + \text{RL12UU} \xrightleftharpoons{\text{CG, RL12UU}} \text{RL12UL}$	
498	r498	RL12UL dissociates to CG and RL12UU	$\text{RL12UL} \xrightleftharpoons{\text{RL12UL}} \text{CG} + \text{RL12UU}$	
499	r499	Grb2 and RL12CU bind yielding RL12LU	$\text{Grb2} + \text{RL12CU} \xrightleftharpoons{\text{Grb2, RL12CU}} \text{RL12LU}$	
500	r500	RL12LU dissociates to Grb2 and RL12CU	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{Grb2} + \text{RL12CU}$	
501	r501	Grb2 and RL12CU bind yielding RL12CG	$\text{Grb2} + \text{RL12CU} \xrightleftharpoons{\text{Grb2, RL12CU}} \text{RL12CG}$	
502	r502	RL12CG dissociates to Grb2 and RL12CU	$\text{RL12CG} \xrightleftharpoons{\text{RL12CG}} \text{Grb2} + \text{RL12CU}$	
503	r503	Grb2 and RL12LU bind yielding RL12LG	$\text{Grb2} + \text{RL12LU} \xrightleftharpoons{\text{Grb2, RL12LU}} \text{RL12LG}$	
504	r504	RL12LG dissociates to Grb2 and RL12LU	$\text{RL12LG} \xrightleftharpoons{\text{RL12LG}} \text{Grb2} + \text{RL12LU}$	
505	r505	RL12LU transforms in (singly-bound -> doubly-bound) RL12CC	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{RL12CC}$	

Nº	Id	Name	Reaction Equation	SBO
506	r506	RL12CC tranforms in (doubly-bound -> singly-bound) RL12LU	$RL12CC \xrightleftharpoons{RL12CC} RL12LU$	
507	r507	Cbl and RL12UG bind yielding RL12CG	$Cbl + RL12UG \xrightleftharpoons{Cbl, RL12UG} RL12CG$	
508	r508	RL12CG dissociates to Cbl and RL12UG	$RL12CG \xrightleftharpoons{RL12CG} Cbl + RL12UG$	
509	r509	CG and RL12UG bind yielding RL12LG	$CG + RL12UG \xrightleftharpoons{CG, RL12UG} RL12LG$	
510	r510	RL12LG dissociates to CG and RL12UG	$RL12LG \xrightleftharpoons{RL12LG} CG + RL12UG$	
511	r511	Cbl and RL12UG bind yielding RL12UL	$Cbl + RL12UG \xrightleftharpoons{Cbl, RL12UG} RL12UL$	
512	r512	RL12UL dissociates to Cbl and RL12UG	$RL12UL \xrightleftharpoons{RL12UL} Cbl + RL12UG$	
513	r513	RL12UL transforms in (singly-bound -> doubly-bound) RL12CC	$RL12UL \xrightleftharpoons{RL12UL} RL12CC$	
514	r514	RL12CC tranforms in (doubly-bound -> singly-bound) RL12UL	$RL12CC \xrightleftharpoons{RL12CC} RL12UL$	
515	r515	RL12CG transforms in (Cbl bind Grb2 directly) RL12CC	$RL12CG \xrightleftharpoons{RL12CG} RL12CC$	
516	r516	RL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RL12CG	$RL12CC \xrightleftharpoons{RL12CC} RL12CG$	
517	r517	Grb2 and RL12CG bind yielding RL12LG	$Grb2 + RL12CG \xrightleftharpoons{Grb2, RL12CG} RL12LG$	
518	r518	RL12LG dissociates to Grb2 and RL12CG	$RL12LG \xrightleftharpoons{RL12LG} Grb2 + RL12CG$	
519	r519	Cbl and Di10UU bind yielding Di10CU	$Cbl + Di10UU \xrightleftharpoons{Cbl, Di10UU} Di10CU$	
520	r520	Di10CU dissociates to Cbl and Di10UU	$Di10CU \xrightleftharpoons{Di10CU} Cbl + Di10UU$	
521	r521	CG and Di10UU bind yielding Di10LU	$CG + Di10UU \xrightleftharpoons{CG, Di10UU} Di10LU$	

Nº	Id	Name	Reaction Equation	SBO
522	r522	Di10LU dissociates to CG and Di10UU	$\text{Di10LU} \xrightleftharpoons{\text{Di10LU}} \text{CG} + \text{Di10UU}$	
523	r523	Grb2 and Di10CU bind yielding Di10LU	$\text{Grb2} + \text{Di10CU} \xrightleftharpoons{\text{Grb2, Di10CU}} \text{Di10LU}$	
524	r524	Di10LU dissociates to Grb2 and Di10CU	$\text{Di10LU} \xrightleftharpoons{\text{Di10LU}} \text{Grb2} + \text{Di10CU}$	
525	r525	Grb2 and Di01UU bind yielding Di01UG	$\text{Grb2} + \text{Di01UU} \xrightleftharpoons{\text{Grb2, Di01UU}} \text{Di01UG}$	
526	r526	Di01UG dissociates to Grb2 and Di01UU	$\text{Di01UG} \xrightleftharpoons{\text{Di01UG}} \text{Grb2} + \text{Di01UU}$	
527	r527	CG and Di01UU bind yielding Di01UL	$\text{CG} + \text{Di01UU} \xrightleftharpoons{\text{CG, Di01UU}} \text{Di01UL}$	
528	r528	Di01UL dissociates to CG and Di01UU	$\text{Di01UL} \xrightleftharpoons{\text{Di01UL}} \text{CG} + \text{Di01UU}$	
529	r529	Cbl and Di01UG bind yielding Di01UL	$\text{Cbl} + \text{Di01UG} \xrightleftharpoons{\text{Cbl, Di01UG}} \text{Di01UL}$	
530	r530	Di01UL dissociates to Cbl and Di01UG	$\text{Di01UL} \xrightleftharpoons{\text{Di01UL}} \text{Cbl} + \text{Di01UG}$	
531	r531	Cbl and Di11UU bind yielding Di11CU	$\text{Cbl} + \text{Di11UU} \xrightleftharpoons{\text{Cbl, Di11UU}} \text{Di11CU}$	
532	r532	Di11CU dissociates to Cbl and Di11UU	$\text{Di11CU} \xrightleftharpoons{\text{Di11CU}} \text{Cbl} + \text{Di11UU}$	
533	r533	CG and Di11UU bind yielding Di11LU	$\text{CG} + \text{Di11UU} \xrightleftharpoons{\text{CG, Di11UU}} \text{Di11LU}$	
534	r534	Di11LU dissociates to CG and Di11UU	$\text{Di11LU} \xrightleftharpoons{\text{Di11LU}} \text{CG} + \text{Di11UU}$	
535	r535	Grb2 and Di11UU bind yielding Di11UG	$\text{Grb2} + \text{Di11UU} \xrightleftharpoons{\text{Grb2, Di11UU}} \text{Di11UG}$	
536	r536	Di11UG dissociates to Grb2 and Di11UU	$\text{Di11UG} \xrightleftharpoons{\text{Di11UG}} \text{Grb2} + \text{Di11UU}$	
537	r537	CG and Di11UU bind yielding Di11UL	$\text{CG} + \text{Di11UU} \xrightleftharpoons{\text{CG, Di11UU}} \text{Di11UL}$	
538	r538	Di11UL dissociates to CG and Di11UU	$\text{Di11UL} \xrightleftharpoons{\text{Di11UL}} \text{CG} + \text{Di11UU}$	
539	r539	Grb2 and Di11CU bind yielding Di11LU	$\text{Grb2} + \text{Di11CU} \xrightleftharpoons{\text{Grb2, Di11CU}} \text{Di11LU}$	
540	r540	Di11LU dissociates to Grb2 and Di11CU	$\text{Di11LU} \xrightleftharpoons{\text{Di11LU}} \text{Grb2} + \text{Di11CU}$	

Nº	Id	Name	Reaction Equation	SBO
541	r541	Grb2 and Di11CU bind yielding Di11CG	$\text{Grb2} + \text{Di11CU} \xrightleftharpoons{\text{Grb2, Di11CU}} \text{Di11CG}$	
542	r542	Di11CG dissociates to Grb2 and Di11CU	$\text{Di11CG} \xrightleftharpoons{\text{Di11CG}} \text{Grb2} + \text{Di11CU}$	
543	r543	Grb2 and Di11LU bind yielding Di11LG	$\text{Grb2} + \text{Di11LU} \xrightleftharpoons{\text{Grb2, Di11LU}} \text{Di11LG}$	
544	r544	Di11LG dissociates to Grb2 and Di11LU	$\text{Di11LG} \xrightleftharpoons{\text{Di11LG}} \text{Grb2} + \text{Di11LU}$	
545	r545	Di11LU transforms in (singly-bound -> doubly-bound) Di11CC	$\text{Di11LU} \xrightleftharpoons{\text{Di11LU}} \text{Di11CC}$	
546	r546	Di11CC tranforms in (doubly-bound -> singly-bound) Di11LU	$\text{Di11CC} \xrightleftharpoons{\text{Di11CC}} \text{Di11LU}$	
547	r547	Cbl and Di11UG bind yielding Di11CG	$\text{Cbl} + \text{Di11UG} \xrightleftharpoons{\text{Cbl, Di11UG}} \text{Di11CG}$	
548	r548	Di11CG dissociates to Cbl and Di11UG	$\text{Di11CG} \xrightleftharpoons{\text{Di11CG}} \text{Cbl} + \text{Di11UG}$	
549	r549	CG and Di11UG bind yielding Di11LG	$\text{CG} + \text{Di11UG} \xrightleftharpoons{\text{CG, Di11UG}} \text{Di11LG}$	
550	r550	Di11LG dissociates to CG and Di11UG	$\text{Di11LG} \xrightleftharpoons{\text{Di11LG}} \text{CG} + \text{Di11UG}$	
551	r551	Cbl and Di11UG bind yielding Di11UL	$\text{Cbl} + \text{Di11UG} \xrightleftharpoons{\text{Cbl, Di11UG}} \text{Di11UL}$	
552	r552	Di11UL dissociates to Cbl and Di11UG	$\text{Di11UL} \xrightleftharpoons{\text{Di11UL}} \text{Cbl} + \text{Di11UG}$	
553	r553	Di11UL transforms in (singly-bound -> doubly-bound) Di11CC	$\text{Di11UL} \xrightleftharpoons{\text{Di11UL}} \text{Di11CC}$	
554	r554	Di11CC tranforms in (doubly-bound -> singly-bound) Di11UL	$\text{Di11CC} \xrightleftharpoons{\text{Di11CC}} \text{Di11UL}$	
555	r555	Di11CG transforms in (Cbl bind Grb2 directly) Di11CC	$\text{Di11CG} \xrightleftharpoons{\text{Di11CG}} \text{Di11CC}$	

Nº	Id	Name	Reaction Equation	SBO
556	r556	Di11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Di11CG	$\text{Di11CC} \xrightleftharpoons{\text{Di11CC}} \text{Di11CG}$	
557	r557	Grb2 and Di11CG bind yielding Di11LG	$\text{Grb2} + \text{Di11CG} \xrightleftharpoons{\text{Grb2, Di11CG}} \text{Di11LG}$	
558	r558	Di11LG dissociates to Grb2 and Di11CG	$\text{Di11LG} \xrightleftharpoons{\text{Di11LG}} \text{Grb2} + \text{Di11CG}$	
559	r559	Grb2 and Di02UU bind yielding Di02UG	$\text{Grb2} + \text{Di02UU} \xrightleftharpoons{\text{Grb2, Di02UU}} \text{Di02UG}$	
560	r560	Di02UG dissociates to Grb2 and Di02UU	$\text{Di02UG} \xrightleftharpoons{\text{Di02UG}} \text{Grb2} + \text{Di02UU}$	
561	r561	CG and Di02UU bind yielding Di02UL	$\text{CG} + \text{Di02UU} \xrightleftharpoons{\text{CG, Di02UU}} \text{Di02UL}$	
562	r562	Di02UL dissociates to CG and Di02UU	$\text{Di02UL} \xrightleftharpoons{\text{Di02UL}} \text{CG} + \text{Di02UU}$	
563	r563	Cbl and Di02UG bind yielding Di02UL	$\text{Cbl} + \text{Di02UG} \xrightleftharpoons{\text{Cbl, Di02UG}} \text{Di02UL}$	
564	r564	Di02UL dissociates to Cbl and Di02UG	$\text{Di02UL} \xrightleftharpoons{\text{Di02UL}} \text{Cbl} + \text{Di02UG}$	
565	r565	Cbl and Di12UU bind yielding Di12CU	$\text{Cbl} + \text{Di12UU} \xrightleftharpoons{\text{Cbl, Di12UU}} \text{Di12CU}$	
566	r566	Di12CU dissociates to Cbl and Di12UU	$\text{Di12CU} \xrightleftharpoons{\text{Di12CU}} \text{Cbl} + \text{Di12UU}$	
567	r567	CG and Di12UU bind yielding Di12LU	$\text{CG} + \text{Di12UU} \xrightleftharpoons{\text{CG, Di12UU}} \text{Di12LU}$	
568	r568	Di12LU dissociates to CG and Di12UU	$\text{Di12LU} \xrightleftharpoons{\text{Di12LU}} \text{CG} + \text{Di12UU}$	
569	r569	Grb2 and Di12UU bind yielding Di12UG	$\text{Grb2} + \text{Di12UU} \xrightleftharpoons{\text{Grb2, Di12UU}} \text{Di12UG}$	
570	r570	Di12UG dissociates to Grb2 and Di12UU	$\text{Di12UG} \xrightleftharpoons{\text{Di12UG}} \text{Grb2} + \text{Di12UU}$	
571	r571	CG and Di12UU bind yielding Di12UL	$\text{CG} + \text{Di12UU} \xrightleftharpoons{\text{CG, Di12UU}} \text{Di12UL}$	
572	r572	Di12UL dissociates to CG and Di12UU	$\text{Di12UL} \xrightleftharpoons{\text{Di12UL}} \text{CG} + \text{Di12UU}$	
573	r573	Grb2 and Di12CU bind yielding Di12LU	$\text{Grb2} + \text{Di12CU} \xrightleftharpoons{\text{Grb2, Di12CU}} \text{Di12LU}$	
574	r574	Di12LU dissociates to Grb2 and Di12CU	$\text{Di12LU} \xrightleftharpoons{\text{Di12LU}} \text{Grb2} + \text{Di12CU}$	

Nº	Id	Name	Reaction Equation	SBO
575	r575	Grb2 and Di12CU bind yielding Di12CG	$\text{Grb2} + \text{Di12CU} \xrightleftharpoons{\text{Grb2, Di12CU}} \text{Di12CG}$	
576	r576	Di12CG dissociates to Grb2 and Di12CU	$\text{Di12CG} \xrightleftharpoons{\text{Di12CG}} \text{Grb2} + \text{Di12CU}$	
577	r577	Grb2 and Di12LU bind yielding Di12LG	$\text{Grb2} + \text{Di12LU} \xrightleftharpoons{\text{Grb2, Di12LU}} \text{Di12LG}$	
578	r578	Di12LG dissociates to Grb2 and Di12LU	$\text{Di12LG} \xrightleftharpoons{\text{Di12LG}} \text{Grb2} + \text{Di12LU}$	
579	r579	Di12LU transforms in (singly-bound -> doubly-bound) Di12CC	$\text{Di12LU} \xrightleftharpoons{\text{Di12LU}} \text{Di12CC}$	
580	r580	Di12CC tranforms in (doubly-bound -> singly-bound) Di12LU	$\text{Di12CC} \xrightleftharpoons{\text{Di12CC}} \text{Di12LU}$	
581	r581	Cbl and Di12UG bind yielding Di12CG	$\text{Cbl} + \text{Di12UG} \xrightleftharpoons{\text{Cbl, Di12UG}} \text{Di12CG}$	
582	r582	Di12CG dissociates to Cbl and Di12UG	$\text{Di12CG} \xrightleftharpoons{\text{Di12CG}} \text{Cbl} + \text{Di12UG}$	
583	r583	CG and Di12UG bind yielding Di12LG	$\text{CG} + \text{Di12UG} \xrightleftharpoons{\text{CG, Di12UG}} \text{Di12LG}$	
584	r584	Di12LG dissociates to CG and Di12UG	$\text{Di12LG} \xrightleftharpoons{\text{Di12LG}} \text{CG} + \text{Di12UG}$	
585	r585	Cbl and Di12UG bind yielding Di12UL	$\text{Cbl} + \text{Di12UG} \xrightleftharpoons{\text{Cbl, Di12UG}} \text{Di12UL}$	
586	r586	Di12UL dissociates to Cbl and Di12UG	$\text{Di12UL} \xrightleftharpoons{\text{Di12UL}} \text{Cbl} + \text{Di12UG}$	
587	r587	Di12UL transforms in (singly-bound -> doubly-bound) Di12CC	$\text{Di12UL} \xrightleftharpoons{\text{Di12UL}} \text{Di12CC}$	
588	r588	Di12CC tranforms in (doubly-bound -> singly-bound) Di12UL	$\text{Di12CC} \xrightleftharpoons{\text{Di12CC}} \text{Di12UL}$	
589	r589	Di12CG transforms in (Cbl bind Grb2 directly) Di12CC	$\text{Di12CG} \xrightleftharpoons{\text{Di12CG}} \text{Di12CC}$	

Nº	Id	Name	Reaction Equation	SBO
590	r590	Di12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Di12CG	$\text{Di12CC} \xrightleftharpoons{\text{Di12CC}} \text{Di12CG}$	
591	r591	Grb2 and Di12CG bind yielding Di12LG	$\text{Grb2} + \text{Di12CG} \xrightleftharpoons{\text{Grb2, Di12CG}} \text{Di12LG}$	
592	r592	Di12LG dissociates to Grb2 and Di12CG	$\text{Di12LG} \xrightleftharpoons{\text{Di12LG}} \text{Grb2} + \text{Di12CG}$	
593	r593	Cbl and Da10UU bind yielding Da10CU	$\text{Cbl} + \text{Da10UU} \xrightleftharpoons{\text{Cbl, Da10UU}} \text{Da10CU}$	
594	r594	Da10CU dissociates to Cbl and Da10UU	$\text{Da10CU} \xrightleftharpoons{\text{Da10CU}} \text{Cbl} + \text{Da10UU}$	
595	r595	CG and Da10UU bind yielding Da10LU	$\text{CG} + \text{Da10UU} \xrightleftharpoons{\text{CG, Da10UU}} \text{Da10LU}$	
596	r596	Da10LU dissociates to CG and Da10UU	$\text{Da10LU} \xrightleftharpoons{\text{Da10LU}} \text{CG} + \text{Da10UU}$	
597	r597	Grb2 and Da10CU bind yielding Da10LU	$\text{Grb2} + \text{Da10CU} \xrightleftharpoons{\text{Grb2, Da10CU}} \text{Da10LU}$	
598	r598	Da10LU dissociates to Grb2 and Da10CU	$\text{Da10LU} \xrightleftharpoons{\text{Da10LU}} \text{Grb2} + \text{Da10CU}$	
599	r599	Grb2 and Da01UU bind yielding Da01UG	$\text{Grb2} + \text{Da01UU} \xrightleftharpoons{\text{Grb2, Da01UU}} \text{Da01UG}$	
600	r600	Da01UG dissociates to Grb2 and Da01UU	$\text{Da01UG} \xrightleftharpoons{\text{Da01UG}} \text{Grb2} + \text{Da01UU}$	
601	r601	CG and Da01UU bind yielding Da01UL	$\text{CG} + \text{Da01UU} \xrightleftharpoons{\text{CG, Da01UU}} \text{Da01UL}$	
602	r602	Da01UL dissociates to CG and Da01UU	$\text{Da01UL} \xrightleftharpoons{\text{Da01UL}} \text{CG} + \text{Da01UU}$	
603	r603	Cbl and Da01UG bind yielding Da01UL	$\text{Cbl} + \text{Da01UG} \xrightleftharpoons{\text{Cbl, Da01UG}} \text{Da01UL}$	
604	r604	Da01UL dissociates to Cbl and Da01UG	$\text{Da01UL} \xrightleftharpoons{\text{Da01UL}} \text{Cbl} + \text{Da01UG}$	
605	r605	Cbl and Da11UU bind yielding Da11CU	$\text{Cbl} + \text{Da11UU} \xrightleftharpoons{\text{Cbl, Da11UU}} \text{Da11CU}$	
606	r606	Da11CU dissociates to Cbl and Da11UU	$\text{Da11CU} \xrightleftharpoons{\text{Da11CU}} \text{Cbl} + \text{Da11UU}$	
607	r607	CG and Da11UU bind yielding Da11LU	$\text{CG} + \text{Da11UU} \xrightleftharpoons{\text{CG, Da11UU}} \text{Da11LU}$	
608	r608	Da11LU dissociates to CG and Da11UU	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{CG} + \text{Da11UU}$	

Nº	Id	Name	Reaction Equation	SBO
609	r609	Grb2 and Da11UU bind yielding Da11UG	$\text{Grb2} + \text{Da11UU} \xrightleftharpoons{\text{Grb2, Da11UU}} \text{Da11UG}$	
610	r610	Da11UG dissociates to Grb2 and Da11UU	$\text{Da11UG} \xrightleftharpoons{\text{Da11UG}} \text{Grb2} + \text{Da11UU}$	
611	r611	CG and Da11UU bind yielding Da11UL	$\text{CG} + \text{Da11UU} \xrightleftharpoons{\text{CG, Da11UU}} \text{Da11UL}$	
612	r612	Da11UL dissociates to CG and Da11UU	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{CG} + \text{Da11UU}$	
613	r613	Grb2 and Da11CU bind yielding Da11LU	$\text{Grb2} + \text{Da11CU} \xrightleftharpoons{\text{Grb2, Da11CU}} \text{Da11LU}$	
614	r614	Da11LU dissociates to Grb2 and Da11CU	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{Grb2} + \text{Da11CU}$	
615	r615	Grb2 and Da11CU bind yielding Da11CG	$\text{Grb2} + \text{Da11CU} \xrightleftharpoons{\text{Grb2, Da11CU}} \text{Da11CG}$	
616	r616	Da11CG dissociates to Grb2 and Da11CU	$\text{Da11CG} \xrightleftharpoons{\text{Da11CG}} \text{Grb2} + \text{Da11CU}$	
617	r617	Grb2 and Da11LU bind yielding Da11LG	$\text{Grb2} + \text{Da11LU} \xrightleftharpoons{\text{Grb2, Da11LU}} \text{Da11LG}$	
618	r618	Da11LG dissociates to Grb2 and Da11LU	$\text{Da11LG} \xrightleftharpoons{\text{Da11LG}} \text{Grb2} + \text{Da11LU}$	
619	r619	Da11LU transforms in (singly-bound -> doubly-bound) Da11CC	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{Da11CC}$	
620	r620	Da11CC tranforms in (doubly-bound -> singly-bound) Da11LU	$\text{Da11CC} \xrightleftharpoons{\text{Da11CC}} \text{Da11LU}$	
621	r621	Cbl and Da11UG bind yielding Da11CG	$\text{Cbl} + \text{Da11UG} \xrightleftharpoons{\text{Cbl, Da11UG}} \text{Da11CG}$	
622	r622	Da11CG dissociates to Cbl and Da11UG	$\text{Da11CG} \xrightleftharpoons{\text{Da11CG}} \text{Cbl} + \text{Da11UG}$	
623	r623	CG and Da11UG bind yielding Da11LG	$\text{CG} + \text{Da11UG} \xrightleftharpoons{\text{CG, Da11UG}} \text{Da11LG}$	
624	r624	Da11LG dissociates to CG and Da11UG	$\text{Da11LG} \xrightleftharpoons{\text{Da11LG}} \text{CG} + \text{Da11UG}$	
625	r625	Cbl and Da11UG bind yielding Da11UL	$\text{Cbl} + \text{Da11UG} \xrightleftharpoons{\text{Cbl, Da11UG}} \text{Da11UL}$	
626	r626	Da11UL dissociates to Cbl and Da11UG	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{Cbl} + \text{Da11UG}$	

Nº	Id	Name	Reaction Equation	SBO
627	r627	Da11UL transforms in (singly-bound -> doubly-bound) Da11CC	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{Da11CC}$	
628	r628	Da11CC tranforms in (doubly-bound -> singly-bound) Da11UL	$\text{Da11CC} \xrightleftharpoons{\text{Da11CC}} \text{Da11UL}$	
629	r629	Da11CG transforms in (Cbl bind Grb2 directly) Da11CC	$\text{Da11CG} \xrightleftharpoons{\text{Da11CG}} \text{Da11CC}$	
630	r630	Da11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Da11CG	$\text{Da11CC} \xrightleftharpoons{\text{Da11CC}} \text{Da11CG}$	
631	r631	Grb2 and Da11CG bind yielding Da11LG	$\text{Grb2} + \text{Da11CG} \xrightleftharpoons{\text{Grb2, Da11CG}} \text{Da11LG}$	
632	r632	Da11LG dissociates to Grb2 and Da11CG	$\text{Da11LG} \xrightleftharpoons{\text{Da11LG}} \text{Grb2} + \text{Da11CG}$	
633	r633	Grb2 and Da02UU bind yielding Da02UG	$\text{Grb2} + \text{Da02UU} \xrightleftharpoons{\text{Grb2, Da02UU}} \text{Da02UG}$	
634	r634	Da02UG dissociates to Grb2 and Da02UU	$\text{Da02UG} \xrightleftharpoons{\text{Da02UG}} \text{Grb2} + \text{Da02UU}$	
635	r635	CG and Da02UU bind yielding Da02UL	$\text{CG} + \text{Da02UU} \xrightleftharpoons{\text{CG, Da02UU}} \text{Da02UL}$	
636	r636	Da02UL dissociates to CG and Da02UU	$\text{Da02UL} \xrightleftharpoons{\text{Da02UL}} \text{CG} + \text{Da02UU}$	
637	r637	Cbl and Da02UG bind yielding Da02UL	$\text{Cbl} + \text{Da02UG} \xrightleftharpoons{\text{Cbl, Da02UG}} \text{Da02UL}$	
638	r638	Da02UL dissociates to Cbl and Da02UG	$\text{Da02UL} \xrightleftharpoons{\text{Da02UL}} \text{Cbl} + \text{Da02UG}$	
639	r639	Cbl and Da12UU bind yielding Da12CU	$\text{Cbl} + \text{Da12UU} \xrightleftharpoons{\text{Cbl, Da12UU}} \text{Da12CU}$	
640	r640	Da12CU dissociates to Cbl and Da12UU	$\text{Da12CU} \xrightleftharpoons{\text{Da12CU}} \text{Cbl} + \text{Da12UU}$	
641	r641	CG and Da12UU bind yielding Da12LU	$\text{CG} + \text{Da12UU} \xrightleftharpoons{\text{CG, Da12UU}} \text{Da12LU}$	
642	r642	Da12LU dissociates to CG and Da12UU	$\text{Da12LU} \xrightleftharpoons{\text{Da12LU}} \text{CG} + \text{Da12UU}$	
643	r643	Grb2 and Da12UU bind yielding Da12UG	$\text{Grb2} + \text{Da12UU} \xrightleftharpoons{\text{Grb2, Da12UU}} \text{Da12UG}$	

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644	r644	Da12UG dissociates to Grb2 and Da12UU	$\text{Da12UG} \xrightleftharpoons{\text{Da12UG}} \text{Grb2} + \text{Da12UU}$	
645	r645	CG and Da12UU bind yielding Da12UL	$\text{CG} + \text{Da12UU} \xrightleftharpoons{\text{CG, Da12UU}} \text{Da12UL}$	
646	r646	Da12UL dissociates to CG and Da12UU	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{CG} + \text{Da12UU}$	
647	r647	Grb2 and Da12CU bind yielding Da12LU	$\text{Grb2} + \text{Da12CU} \xrightleftharpoons{\text{Grb2, Da12CU}} \text{Da12LU}$	
648	r648	Da12LU dissociates to Grb2 and Da12CU	$\text{Da12LU} \xrightleftharpoons{\text{Da12LU}} \text{Grb2} + \text{Da12CU}$	
649	r649	Grb2 and Da12CU bind yielding Da12CG	$\text{Grb2} + \text{Da12CU} \xrightleftharpoons{\text{Grb2, Da12CU}} \text{Da12CG}$	
650	r650	Da12CG dissociates to Grb2 and Da12CU	$\text{Da12CG} \xrightleftharpoons{\text{Da12CG}} \text{Grb2} + \text{Da12CU}$	
651	r651	Grb2 and Da12LU bind yielding Da12LG	$\text{Grb2} + \text{Da12LU} \xrightleftharpoons{\text{Grb2, Da12LU}} \text{Da12LG}$	
652	r652	Da12LG dissociates to Grb2 and Da12LU	$\text{Da12LG} \xrightleftharpoons{\text{Da12LG}} \text{Grb2} + \text{Da12LU}$	
653	r653	Da12LU transforms in (singly-bound -> doubly-bound) Da12CC	$\text{Da12LU} \xrightleftharpoons{\text{Da12LU}} \text{Da12CC}$	
654	r654	Da12CC tranforms in (doubly-bound -> singly-bound) Da12LU	$\text{Da12CC} \xrightleftharpoons{\text{Da12CC}} \text{Da12LU}$	
655	r655	Cbl and Da12UG bind yielding Da12CG	$\text{Cbl} + \text{Da12UG} \xrightleftharpoons{\text{Cbl, Da12UG}} \text{Da12CG}$	
656	r656	Da12CG dissociates to Cbl and Da12UG	$\text{Da12CG} \xrightleftharpoons{\text{Da12CG}} \text{Cbl} + \text{Da12UG}$	
657	r657	CG and Da12UG bind yielding Da12LG	$\text{CG} + \text{Da12UG} \xrightleftharpoons{\text{CG, Da12UG}} \text{Da12LG}$	
658	r658	Da12LG dissociates to CG and Da12UG	$\text{Da12LG} \xrightleftharpoons{\text{Da12LG}} \text{CG} + \text{Da12UG}$	
659	r659	Cbl and Da12UG bind yielding Da12UL	$\text{Cbl} + \text{Da12UG} \xrightleftharpoons{\text{Cbl, Da12UG}} \text{Da12UL}$	
660	r660	Da12UL dissociates to Cbl and Da12UG	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{Cbl} + \text{Da12UG}$	
661	r661	Da12UL transforms in (singly-bound -> doubly-bound) Da12CC	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{Da12CC}$	

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662	r662	Da12CC tranforms in (doubly-bound -> singly-bound) Da12UL	$\text{Da12CC} \xrightleftharpoons{\text{Da12CC}} \text{Da12UL}$	
663	r663	Da12CG transforms in (Cbl bind Grb2 directly) Da12CC	$\text{Da12CG} \xrightleftharpoons{\text{Da12CG}} \text{Da12CC}$	
664	r664	Da12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Da12CG	$\text{Da12CC} \xrightleftharpoons{\text{Da12CC}} \text{Da12CG}$	
665	r665	Grb2 and Da12CG bind yielding Da12LG	$\text{Grb2} + \text{Da12CG} \xrightleftharpoons{\text{Grb2, Da12CG}} \text{Da12LG}$	
666	r666	Da12LG dissociates to Grb2 and Da12CG	$\text{Da12LG} \xrightleftharpoons{\text{Da12LG}} \text{Grb2} + \text{Da12CG}$	
667	r667	Cbl and DiL10UU bind yielding DiL10CU	$\text{Cbl} + \text{DiL10UU} \xrightleftharpoons{\text{Cbl, DiL10UU}} \text{DiL10CU}$	
668	r668	DiL10CU dissociates to Cbl and DiL10UU	$\text{DiL10CU} \xrightleftharpoons{\text{DiL10CU}} \text{Cbl} + \text{DiL10UU}$	
669	r669	CG and DiL10UU bind yielding DiL10LU	$\text{CG} + \text{DiL10UU} \xrightleftharpoons{\text{CG, DiL10UU}} \text{DiL10LU}$	
670	r670	DiL10LU dissociates to CG and DiL10UU	$\text{DiL10LU} \xrightleftharpoons{\text{DiL10LU}} \text{CG} + \text{DiL10UU}$	
671	r671	Grb2 and DiL10CU bind yielding DiL10LU	$\text{Grb2} + \text{DiL10CU} \xrightleftharpoons{\text{Grb2, DiL10CU}} \text{DiL10LU}$	
672	r672	DiL10LU dissociates to Grb2 and DiL10CU	$\text{DiL10LU} \xrightleftharpoons{\text{DiL10LU}} \text{Grb2} + \text{DiL10CU}$	
673	r673	Grb2 and DiL01UU bind yielding DiL01UG	$\text{Grb2} + \text{DiL01UU} \xrightleftharpoons{\text{Grb2, DiL01UU}} \text{DiL01UG}$	
674	r674	DiL01UG dissociates to Grb2 and DiL01UU	$\text{DiL01UG} \xrightleftharpoons{\text{DiL01UG}} \text{Grb2} + \text{DiL01UU}$	
675	r675	CG and DiL01UU bind yielding DiL01UL	$\text{CG} + \text{DiL01UU} \xrightleftharpoons{\text{CG, DiL01UU}} \text{DiL01UL}$	
676	r676	DiL01UL dissociates to CG and DiL01UU	$\text{DiL01UL} \xrightleftharpoons{\text{DiL01UL}} \text{CG} + \text{DiL01UU}$	
677	r677	Cbl and DiL01UG bind yielding DiL01UL	$\text{Cbl} + \text{DiL01UG} \xrightleftharpoons{\text{Cbl, DiL01UG}} \text{DiL01UL}$	
678	r678	DiL01UL dissociates to Cbl and DiL01UG	$\text{DiL01UL} \xrightleftharpoons{\text{DiL01UL}} \text{Cbl} + \text{DiL01UG}$	

Nº	Id	Name	Reaction Equation	SBO
679	r679	Cbl and DiL11UU bind yielding DiL11CU	$\text{Cbl} + \text{DiL11UU} \xrightleftharpoons{\text{Cbl, DiL11UU}} \text{DiL11CU}$	
680	r680	DiL11CU dissociates to Cbl and DiL11UU	$\text{DiL11CU} \xrightleftharpoons{\text{DiL11CU}} \text{Cbl} + \text{DiL11UU}$	
681	r681	CG and DiL11UU bind yielding DiL11LU	$\text{CG} + \text{DiL11UU} \xrightleftharpoons{\text{CG, DiL11UU}} \text{DiL11LU}$	
682	r682	DiL11LU dissociates to CG and DiL11UU	$\text{DiL11LU} \xrightleftharpoons{\text{DiL11LU}} \text{CG} + \text{DiL11UU}$	
683	r683	Grb2 and DiL11UU bind yielding DiL11UG	$\text{Grb2} + \text{DiL11UU} \xrightleftharpoons{\text{Grb2, DiL11UU}} \text{DiL11UG}$	
684	r684	DiL11UG dissociates to Grb2 and DiL11UU	$\text{DiL11UG} \xrightleftharpoons{\text{DiL11UG}} \text{Grb2} + \text{DiL11UU}$	
685	r685	CG and DiL11UU bind yielding DiL11UL	$\text{CG} + \text{DiL11UU} \xrightleftharpoons{\text{CG, DiL11UU}} \text{DiL11UL}$	
686	r686	DiL11UL dissociates to CG and DiL11UU	$\text{DiL11UL} \xrightleftharpoons{\text{DiL11UL}} \text{CG} + \text{DiL11UU}$	
687	r687	Grb2 and DiL11CU bind yielding DiL11LU	$\text{Grb2} + \text{DiL11CU} \xrightleftharpoons{\text{Grb2, DiL11CU}} \text{DiL11LU}$	
688	r688	DiL11LU dissociates to Grb2 and DiL11CU	$\text{DiL11LU} \xrightleftharpoons{\text{DiL11LU}} \text{Grb2} + \text{DiL11CU}$	
689	r689	Grb2 and DiL11CU bind yielding DiL11CG	$\text{Grb2} + \text{DiL11CU} \xrightleftharpoons{\text{Grb2, DiL11CU}} \text{DiL11CG}$	
690	r690	DiL11CG dissociates to Grb2 and DiL11CU	$\text{DiL11CG} \xrightleftharpoons{\text{DiL11CG}} \text{Grb2} + \text{DiL11CU}$	
691	r691	Grb2 and DiL11LU bind yielding DiL11LG	$\text{Grb2} + \text{DiL11LU} \xrightleftharpoons{\text{Grb2, DiL11LU}} \text{DiL11LG}$	
692	r692	DiL11LG dissociates to Grb2 and DiL11LU	$\text{DiL11LG} \xrightleftharpoons{\text{DiL11LG}} \text{Grb2} + \text{DiL11LU}$	
693	r693	DiL11LU transforms in (singly-bound -> doubly-bound) DiL11CC	$\text{DiL11LU} \xrightleftharpoons{\text{DiL11LU}} \text{DiL11CC}$	
694	r694	DiL11CC tranforms in (doubly-bound -> singly-bound) DiL11LU	$\text{DiL11CC} \xrightleftharpoons{\text{DiL11CC}} \text{DiL11LU}$	
695	r695	Cbl and DiL11UG bind yielding DiL11CG	$\text{Cbl} + \text{DiL11UG} \xrightleftharpoons{\text{Cbl, DiL11UG}} \text{DiL11CG}$	
696	r696	DiL11CG dissociates to Cbl and DiL11UG	$\text{DiL11CG} \xrightleftharpoons{\text{DiL11CG}} \text{Cbl} + \text{DiL11UG}$	

Nº	Id	Name	Reaction Equation	SBO
697	r697	CG and DiL11UG bind yielding DiL11LG	$CG + DiL11UG \xrightleftharpoons{CG, DiL11UG} DiL11LG$	
698	r698	DiL11LG dissociates to CG and DiL11UG	$DiL11LG \xrightleftharpoons{DiL11LG} CG + DiL11UG$	
699	r699	Cbl and DiL11UG bind yielding DiL11UL	$Cbl + DiL11UG \xrightleftharpoons{Cbl, DiL11UG} DiL11UL$	
700	r700	DiL11UL dissociates to Cbl and DiL11UG	$DiL11UL \xrightleftharpoons{DiL11UL} Cbl + DiL11UG$	
701	r701	DiL11UL transforms in (singly-bound -> doubly-bound) DiL11CC	$DiL11UL \xrightleftharpoons{DiL11UL} DiL11CC$	
702	r702	DiL11CC tranforms in (doubly-bound -> singly-bound) DiL11UL	$DiL11CC \xrightleftharpoons{DiL11CC} DiL11UL$	
703	r703	DiL11CG transforms in (Cbl bind Grb2 directly) DiL11CC	$DiL11CG \xrightleftharpoons{DiL11CG} DiL11CC$	
704	r704	DiL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DiL11CG	$DiL11CC \xrightleftharpoons{DiL11CC} DiL11CG$	
705	r705	Grb2 and DiL11CG bind yielding DiL11LG	$Grb2 + DiL11CG \xrightleftharpoons{Grb2, DiL11CG} DiL11LG$	
706	r706	DiL11LG dissociates to Grb2 and DiL11CG	$DiL11LG \xrightleftharpoons{DiL11LG} Grb2 + DiL11CG$	
707	r707	Grb2 and DiL02UU bind yielding DiL02UG	$Grb2 + DiL02UU \xrightleftharpoons{Grb2, DiL02UU} DiL02UG$	
708	r708	DiL02UG dissociates to Grb2 and DiL02UU	$DiL02UG \xrightleftharpoons{DiL02UG} Grb2 + DiL02UU$	
709	r709	CG and DiL02UU bind yielding DiL02UL	$CG + DiL02UU \xrightleftharpoons{CG, DiL02UU} DiL02UL$	
710	r710	DiL02UL dissociates to CG and DiL02UU	$DiL02UL \xrightleftharpoons{DiL02UL} CG + DiL02UU$	
711	r711	Cbl and DiL02UG bind yielding DiL02UL	$Cbl + DiL02UG \xrightleftharpoons{Cbl, DiL02UG} DiL02UL$	
712	r712	DiL02UL dissociates to Cbl and DiL02UG	$DiL02UL \xrightleftharpoons{DiL02UL} Cbl + DiL02UG$	
713	r713	Cbl and DiL12UU bind yielding DiL12CU	$Cbl + DiL12UU \xrightleftharpoons{Cbl, DiL12UU} DiL12CU$	

Nº	Id	Name	Reaction Equation	SBO
714	r714	DiL12CU dissociates to Cbl and DiL12UU	$\text{DiL12CU} \xrightleftharpoons{\text{DiL12CU}} \text{Cbl} + \text{DiL12UU}$	
715	r715	CG and DiL12UU bind yielding DiL12LU	$\text{CG} + \text{DiL12UU} \xrightleftharpoons{\text{CG, DiL12UU}} \text{DiL12LU}$	
716	r716	DiL12LU dissociates to CG and DiL12UU	$\text{DiL12LU} \xrightleftharpoons{\text{DiL12LU}} \text{CG} + \text{DiL12UU}$	
717	r717	Grb2 and DiL12UU bind yielding DiL12UG	$\text{Grb2} + \text{DiL12UU} \xrightleftharpoons{\text{Grb2, DiL12UU}} \text{DiL12UG}$	
718	r718	DiL12UG dissociates to Grb2 and DiL12UU	$\text{DiL12UG} \xrightleftharpoons{\text{DiL12UG}} \text{Grb2} + \text{DiL12UU}$	
719	r719	CG and DiL12UU bind yielding DiL12UL	$\text{CG} + \text{DiL12UU} \xrightleftharpoons{\text{CG, DiL12UU}} \text{DiL12UL}$	
720	r720	DiL12UL dissociates to CG and DiL12UU	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{CG} + \text{DiL12UU}$	
721	r721	Grb2 and DiL12CU bind yielding DiL12LU	$\text{Grb2} + \text{DiL12CU} \xrightleftharpoons{\text{Grb2, DiL12CU}} \text{DiL12LU}$	
722	r722	DiL12LU dissociates to Grb2 and DiL12CU	$\text{DiL12LU} \xrightleftharpoons{\text{DiL12LU}} \text{Grb2} + \text{DiL12CU}$	
723	r723	Grb2 and DiL12CU bind yielding DiL12CG	$\text{Grb2} + \text{DiL12CU} \xrightleftharpoons{\text{Grb2, DiL12CU}} \text{DiL12CG}$	
724	r724	DiL12CG dissociates to Grb2 and DiL12CU	$\text{DiL12CG} \xrightleftharpoons{\text{DiL12CG}} \text{Grb2} + \text{DiL12CU}$	
725	r725	Grb2 and DiL12LU bind yielding DiL12LG	$\text{Grb2} + \text{DiL12LU} \xrightleftharpoons{\text{Grb2, DiL12LU}} \text{DiL12LG}$	
726	r726	DiL12LG dissociates to Grb2 and DiL12LU	$\text{DiL12LG} \xrightleftharpoons{\text{DiL12LG}} \text{Grb2} + \text{DiL12LU}$	
727	r727	DiL12LU transforms in (singly-bound -> doubly-bound) DiL12CC	$\text{DiL12LU} \xrightleftharpoons{\text{DiL12LU}} \text{DiL12CC}$	
728	r728	DiL12CC tranforms in (doubly-bound -> singly-bound) DiL12LU	$\text{DiL12CC} \xrightleftharpoons{\text{DiL12CC}} \text{DiL12LU}$	
729	r729	Cbl and DiL12UG bind yielding DiL12CG	$\text{Cbl} + \text{DiL12UG} \xrightleftharpoons{\text{Cbl, DiL12UG}} \text{DiL12CG}$	
730	r730	DiL12CG dissociates to Cbl and DiL12UG	$\text{DiL12CG} \xrightleftharpoons{\text{DiL12CG}} \text{Cbl} + \text{DiL12UG}$	
731	r731	CG and DiL12UG bind yielding DiL12LG	$\text{CG} + \text{DiL12UG} \xrightleftharpoons{\text{CG, DiL12UG}} \text{DiL12LG}$	

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732	r732	DiL12LG dissociates to CG and DiL12UG	$\text{DiL12LG} \xrightleftharpoons{\text{DiL12LG}} \text{CG} + \text{DiL12UG}$	
733	r733	Cbl and DiL12UG bind yielding DiL12UL	$\text{Cbl} + \text{DiL12UG} \xrightleftharpoons{\text{Cbl, DiL12UG}} \text{DiL12UL}$	
734	r734	DiL12UL dissociates to Cbl and DiL12UG	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{Cbl} + \text{DiL12UG}$	
735	r735	DiL12UL transforms in (singly-bound -> doubly-bound) DiL12CC	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{DiL12CC}$	
736	r736	DiL12CC tranforms in (doubly-bound -> singly-bound) DiL12UL	$\text{DiL12CC} \xrightleftharpoons{\text{DiL12CC}} \text{DiL12UL}$	
737	r737	DiL12CG transforms in (Cbl bind Grb2 directly) DiL12CC	$\text{DiL12CG} \xrightleftharpoons{\text{DiL12CG}} \text{DiL12CC}$	
738	r738	DiL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DiL12CG	$\text{DiL12CC} \xrightleftharpoons{\text{DiL12CC}} \text{DiL12CG}$	
739	r739	Grb2 and DiL12CG bind yielding DiL12LG	$\text{Grb2} + \text{DiL12CG} \xrightleftharpoons{\text{Grb2, DiL12CG}} \text{DiL12LG}$	
740	r740	DiL12LG dissociates to Grb2 and DiL12CG	$\text{DiL12LG} \xrightleftharpoons{\text{DiL12LG}} \text{Grb2} + \text{DiL12CG}$	
741	r741	Cbl and DaL10UU bind yielding DaL10CU	$\text{Cbl} + \text{DaL10UU} \xrightleftharpoons{\text{Cbl, DaL10UU}} \text{DaL10CU}$	
742	r742	DaL10CU dissociates to Cbl and DaL10UU	$\text{DaL10CU} \xrightleftharpoons{\text{DaL10CU}} \text{Cbl} + \text{DaL10UU}$	
743	r743	CG and DaL10UU bind yielding DaL10LU	$\text{CG} + \text{DaL10UU} \xrightleftharpoons{\text{CG, DaL10UU}} \text{DaL10LU}$	
744	r744	DaL10LU dissociates to CG and DaL10UU	$\text{DaL10LU} \xrightleftharpoons{\text{DaL10LU}} \text{CG} + \text{DaL10UU}$	
745	r745	Grb2 and DaL10CU bind yielding DaL10LU	$\text{Grb2} + \text{DaL10CU} \xrightleftharpoons{\text{Grb2, DaL10CU}} \text{DaL10LU}$	
746	r746	DaL10LU dissociates to Grb2 and DaL10CU	$\text{DaL10LU} \xrightleftharpoons{\text{DaL10LU}} \text{Grb2} + \text{DaL10CU}$	
747	r747	Grb2 and DaL01UU bind yielding DaL01UG	$\text{Grb2} + \text{DaL01UU} \xrightleftharpoons{\text{Grb2, DaL01UU}} \text{DaL01UG}$	
748	r748	DaL01UG dissociates to Grb2 and DaL01UU	$\text{DaL01UG} \xrightleftharpoons{\text{DaL01UG}} \text{Grb2} + \text{DaL01UU}$	

Nº	Id	Name	Reaction Equation	SBO
749	r749	CG and DaL01UU bind yielding DaL01UL	$\text{CG} + \text{DaL01UU} \xrightleftharpoons{\text{CG, DaL01UU}} \text{DaL01UL}$	
750	r750	DaL01UL dissociates to CG and DaL01UU	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{CG} + \text{DaL01UU}$	
751	r751	Cbl and DaL01UG bind yielding DaL01UL	$\text{Cbl} + \text{DaL01UG} \xrightleftharpoons{\text{Cbl, DaL01UG}} \text{DaL01UL}$	
752	r752	DaL01UL dissociates to Cbl and DaL01UG	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{Cbl} + \text{DaL01UG}$	
753	r753	Cbl and DaL11UU bind yielding DaL11CU	$\text{Cbl} + \text{DaL11UU} \xrightleftharpoons{\text{Cbl, DaL11UU}} \text{DaL11CU}$	
754	r754	DaL11CU dissociates to Cbl and DaL11UU	$\text{DaL11CU} \xrightleftharpoons{\text{DaL11CU}} \text{Cbl} + \text{DaL11UU}$	
755	r755	CG and DaL11UU bind yielding DaL11LU	$\text{CG} + \text{DaL11UU} \xrightleftharpoons{\text{CG, DaL11UU}} \text{DaL11LU}$	
756	r756	DaL11LU dissociates to CG and DaL11UU	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{CG} + \text{DaL11UU}$	
757	r757	Grb2 and DaL11UU bind yielding DaL11UG	$\text{Grb2} + \text{DaL11UU} \xrightleftharpoons{\text{Grb2, DaL11UU}} \text{DaL11UG}$	
758	r758	DaL11UG dissociates to Grb2 and DaL11UU	$\text{DaL11UG} \xrightleftharpoons{\text{DaL11UG}} \text{Grb2} + \text{DaL11UU}$	
759	r759	CG and DaL11UU bind yielding DaL11UL	$\text{CG} + \text{DaL11UU} \xrightleftharpoons{\text{CG, DaL11UU}} \text{DaL11UL}$	
760	r760	DaL11UL dissociates to CG and DaL11UU	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{CG} + \text{DaL11UU}$	
761	r761	Grb2 and DaL11CU bind yielding DaL11LU	$\text{Grb2} + \text{DaL11CU} \xrightleftharpoons{\text{Grb2, DaL11CU}} \text{DaL11LU}$	
762	r762	DaL11LU dissociates to Grb2 and DaL11CU	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{Grb2} + \text{DaL11CU}$	
763	r763	Grb2 and DaL11CU bind yielding DaL11CG	$\text{Grb2} + \text{DaL11CU} \xrightleftharpoons{\text{Grb2, DaL11CU}} \text{DaL11CG}$	
764	r764	DaL11CG dissociates to Grb2 and DaL11CU	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{Grb2} + \text{DaL11CU}$	
765	r765	Grb2 and DaL11LU bind yielding DaL11LG	$\text{Grb2} + \text{DaL11LU} \xrightleftharpoons{\text{Grb2, DaL11LU}} \text{DaL11LG}$	
766	r766	DaL11LG dissociates to Grb2 and DaL11LU	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{Grb2} + \text{DaL11LU}$	
767	r767	DaL11LU transforms in (singly-bound -> doubly-bound) DaL11CC	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{DaL11CC}$	

Nº	Id	Name	Reaction Equation	SBO
768	r768	DaL11CC tranforms in (doubly-bound -> singly-bound) DaL11LU	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{DaL11LU}$	
769	r769	Cbl and DaL11UG bind yielding DaL11CG	$\text{Cbl} + \text{DaL11UG} \xrightleftharpoons{\text{Cbl, DaL11UG}} \text{DaL11CG}$	
770	r770	DaL11CG dissociates to Cbl and DaL11UG	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{Cbl} + \text{DaL11UG}$	
771	r771	CG and DaL11UG bind yielding DaL11LG	$\text{CG} + \text{DaL11UG} \xrightleftharpoons{\text{CG, DaL11UG}} \text{DaL11LG}$	
772	r772	DaL11LG dissociates to CG and DaL11UG	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{CG} + \text{DaL11UG}$	
773	r773	Cbl and DaL11UG bind yielding DaL11UL	$\text{Cbl} + \text{DaL11UG} \xrightleftharpoons{\text{Cbl, DaL11UG}} \text{DaL11UL}$	
774	r774	DaL11UL dissociates to Cbl and DaL11UG	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{Cbl} + \text{DaL11UG}$	
775	r775	DaL11UL transforms in (singly-bound -> doubly-bound) DaL11CC	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{DaL11CC}$	
776	r776	DaL11CC tranforms in (doubly-bound -> singly-bound) DaL11UL	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{DaL11UL}$	
777	r777	DaL11CG transforms in (Cbl bind Grb2 directly) DaL11CC	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{DaL11CC}$	
778	r778	DaL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DaL11CG	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{DaL11CG}$	
779	r779	Grb2 and DaL11CG bind yielding DaL11LG	$\text{Grb2} + \text{DaL11CG} \xrightleftharpoons{\text{Grb2, DaL11CG}} \text{DaL11LG}$	
780	r780	DaL11LG dissociates to Grb2 and DaL11CG	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{Grb2} + \text{DaL11CG}$	
781	r781	Grb2 and DaL02UU bind yielding DaL02UG	$\text{Grb2} + \text{DaL02UU} \xrightleftharpoons{\text{Grb2, DaL02UU}} \text{DaL02UG}$	
782	r782	DaL02UG dissociates to Grb2 and DaL02UU	$\text{DaL02UG} \xrightleftharpoons{\text{DaL02UG}} \text{Grb2} + \text{DaL02UU}$	

Nº	Id	Name	Reaction Equation	SBO
783	r783	CG and DaL02UU bind yielding DaL02UL	$\text{CG} + \text{DaL02UU} \xrightleftharpoons{\text{CG, DaL02UU}} \text{DaL02UL}$	
784	r784	DaL02UL dissociates to CG and DaL02UU	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{CG} + \text{DaL02UU}$	
785	r785	Cbl and DaL02UG bind yielding DaL02UL	$\text{Cbl} + \text{DaL02UG} \xrightleftharpoons{\text{Cbl, DaL02UG}} \text{DaL02UL}$	
786	r786	DaL02UL dissociates to Cbl and DaL02UG	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{Cbl} + \text{DaL02UG}$	
787	r787	Cbl and DaL12UU bind yielding DaL12CU	$\text{Cbl} + \text{DaL12UU} \xrightleftharpoons{\text{Cbl, DaL12UU}} \text{DaL12CU}$	
788	r788	DaL12CU dissociates to Cbl and DaL12UU	$\text{DaL12CU} \xrightleftharpoons{\text{DaL12CU}} \text{Cbl} + \text{DaL12UU}$	
789	r789	CG and DaL12UU bind yielding DaL12LU	$\text{CG} + \text{DaL12UU} \xrightleftharpoons{\text{CG, DaL12UU}} \text{DaL12LU}$	
790	r790	DaL12LU dissociates to CG and DaL12UU	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{CG} + \text{DaL12UU}$	
791	r791	Grb2 and DaL12UU bind yielding DaL12UG	$\text{Grb2} + \text{DaL12UU} \xrightleftharpoons{\text{Grb2, DaL12UU}} \text{DaL12UG}$	
792	r792	DaL12UG dissociates to Grb2 and DaL12UU	$\text{DaL12UG} \xrightleftharpoons{\text{DaL12UG}} \text{Grb2} + \text{DaL12UU}$	
793	r793	CG and DaL12UU bind yielding DaL12UL	$\text{CG} + \text{DaL12UU} \xrightleftharpoons{\text{CG, DaL12UU}} \text{DaL12UL}$	
794	r794	DaL12UL dissociates to CG and DaL12UU	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{CG} + \text{DaL12UU}$	
795	r795	Grb2 and DaL12CU bind yielding DaL12LU	$\text{Grb2} + \text{DaL12CU} \xrightleftharpoons{\text{Grb2, DaL12CU}} \text{DaL12LU}$	
796	r796	DaL12LU dissociates to Grb2 and DaL12CU	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{Grb2} + \text{DaL12CU}$	
797	r797	Grb2 and DaL12CU bind yielding DaL12CG	$\text{Grb2} + \text{DaL12CU} \xrightleftharpoons{\text{Grb2, DaL12CU}} \text{DaL12CG}$	
798	r798	DaL12CG dissociates to Grb2 and DaL12CU	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{Grb2} + \text{DaL12CU}$	
799	r799	Grb2 and DaL12LU bind yielding DaL12LG	$\text{Grb2} + \text{DaL12LU} \xrightleftharpoons{\text{Grb2, DaL12LU}} \text{DaL12LG}$	
800	r800	DaL12LG dissociates to Grb2 and DaL12LU	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{Grb2} + \text{DaL12LU}$	
801	r801	DaL12LU transforms in (singly-bound -> doubly-bound) DaL12CC	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{DaL12CC}$	

Nº	Id	Name	Reaction Equation	SBO
802	r802	DaL12CC tranforms in (doubly-bound -> singly-bound) DaL12LU	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{DaL12LU}$	
803	r803	Cbl and DaL12UG bind yielding DaL12CG	$\text{Cbl} + \text{DaL12UG} \xrightleftharpoons{\text{Cbl, DaL12UG}} \text{DaL12CG}$	
804	r804	DaL12CG dissociates to Cbl and DaL12UG	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{Cbl} + \text{DaL12UG}$	
805	r805	CG and DaL12UG bind yielding DaL12LG	$\text{CG} + \text{DaL12UG} \xrightleftharpoons{\text{CG, DaL12UG}} \text{DaL12LG}$	
806	r806	DaL12LG dissociates to CG and DaL12UG	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{CG} + \text{DaL12UG}$	
807	r807	Cbl and DaL12UG bind yielding DaL12UL	$\text{Cbl} + \text{DaL12UG} \xrightleftharpoons{\text{Cbl, DaL12UG}} \text{DaL12UL}$	
808	r808	DaL12UL dissociates to Cbl and DaL12UG	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{Cbl} + \text{DaL12UG}$	
809	r809	DaL12UL transforms in (singly-bound -> doubly-bound) DaL12CC	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{DaL12CC}$	
810	r810	DaL12CC tranforms in (doubly-bound -> singly-bound) DaL12UL	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{DaL12UL}$	
811	r811	DaL12CG transforms in (Cbl bind Grb2 directly) DaL12CC	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{DaL12CC}$	
812	r812	DaL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DaL12CG	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{DaL12CG}$	
813	r813	Grb2 and DaL12CG bind yielding DaL12LG	$\text{Grb2} + \text{DaL12CG} \xrightleftharpoons{\text{Grb2, DaL12CG}} \text{DaL12LG}$	
814	r814	DaL12LG dissociates to Grb2 and DaL12CG	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{Grb2} + \text{DaL12CG}$	
815	r815	R00UU closes	$\text{R00UU} \xrightleftharpoons{\text{R00UU}} \text{Rc00UU}$	
816	r816	R10UU closes	$\text{R10UU} \xrightleftharpoons{\text{R10UU}} \text{Rc10UU}$	
817	r817	R10CU closes	$\text{R10CU} \xrightleftharpoons{\text{R10CU}} \text{Rc10CU}$	

Nº	Id	Name	Reaction Equation	SBO
818	r818	R10LU closes	$R10LU \xrightleftharpoons{R10LU} Rc10LU$	
819	r819	R01UU closes	$R01UU \xrightleftharpoons{R01UU} Rc01UU$	
820	r820	R01UG closes	$R01UG \xrightleftharpoons{R01UG} Rc01UG$	
821	r821	R01UL closes	$R01UL \xrightleftharpoons{R01UL} Rc01UL$	
822	r822	R11UU closes	$R11UU \xrightleftharpoons{R11UU} Rc11UU$	
823	r823	R11CU closes	$R11CU \xrightleftharpoons{R11CU} Rc11CU$	
824	r824	R11LU closes	$R11LU \xrightleftharpoons{R11LU} Rc11LU$	
825	r825	R11UG closes	$R11UG \xrightleftharpoons{R11UG} Rc11UG$	
826	r826	R11UL closes	$R11UL \xrightleftharpoons{R11UL} Rc11UL$	
827	r827	R11CG closes	$R11CG \xrightleftharpoons{R11CG} Rc11CG$	
828	r828	R11CC closes	$R11CC \xrightleftharpoons{R11CC} Rc11CC$	
829	r829	R11LG closes	$R11LG \xrightleftharpoons{R11LG} Rc11LG$	
830	r830	R02UU closes	$R02UU \xrightleftharpoons{R02UU} Rc02UU$	
831	r831	R02UG closes	$R02UG \xrightleftharpoons{R02UG} Rc02UG$	
832	r832	R02UL closes	$R02UL \xrightleftharpoons{R02UL} Rc02UL$	
833	r833	R12UU closes	$R12UU \xrightleftharpoons{R12UU} Rc12UU$	
834	r834	R12CU closes	$R12CU \xrightleftharpoons{R12CU} Rc12CU$	
835	r835	R12LU closes	$R12LU \xrightleftharpoons{R12LU} Rc12LU$	
836	r836	R12UG closes	$R12UG \xrightleftharpoons{R12UG} Rc12UG$	
837	r837	R12UL closes	$R12UL \xrightleftharpoons{R12UL} Rc12UL$	

Nº	Id	Name	Reaction Equation	SBO
838	r838	R12CG closes	$R12CG \xrightleftharpoons{R12CG} Rc12CG$	
839	r839	R12CC closes	$R12CC \xrightleftharpoons{R12CC} Rc12CC$	
840	r840	R12LG closes	$R12LG \xrightleftharpoons{R12LG} Rc12LG$	
841	r841	Rc00UU opens	$Rc00UU \xrightleftharpoons{Rc00UU} R00UU$	
842	r842	Rc10UU opens	$Rc10UU \xrightleftharpoons{Rc10UU} R10UU$	
843	r843	Rc10CU opens	$Rc10CU \xrightleftharpoons{Rc10CU} R10CU$	
844	r844	Rc10LU opens	$Rc10LU \xrightleftharpoons{Rc10LU} R10LU$	
845	r845	Rc01UU opens	$Rc01UU \xrightleftharpoons{Rc01UU} R01UU$	
846	r846	Rc01UG opens	$Rc01UG \xrightleftharpoons{Rc01UG} R01UG$	
847	r847	Rc01UL opens	$Rc01UL \xrightleftharpoons{Rc01UL} R01UL$	
848	r848	Rc11UU opens	$Rc11UU \xrightleftharpoons{Rc11UU} R11UU$	
849	r849	Rc11CU opens	$Rc11CU \xrightleftharpoons{Rc11CU} R11CU$	
850	r850	Rc11LU opens	$Rc11LU \xrightleftharpoons{Rc11LU} R11LU$	
851	r851	Rc11UG opens	$Rc11UG \xrightleftharpoons{Rc11UG} R11UG$	
852	r852	Rc11UL opens	$Rc11UL \xrightleftharpoons{Rc11UL} R11UL$	
853	r853	Rc11CG opens	$Rc11CG \xrightleftharpoons{Rc11CG} R11CG$	
854	r854	Rc11CC opens	$Rc11CC \xrightleftharpoons{Rc11CC} R11CC$	
855	r855	Rc11LG opens	$Rc11LG \xrightleftharpoons{Rc11LG} R11LG$	
856	r856	Rc02UU opens	$Rc02UU \xrightleftharpoons{Rc02UU} R02UU$	
857	r857	Rc02UG opens	$Rc02UG \xrightleftharpoons{Rc02UG} R02UG$	

Nº	Id	Name	Reaction Equation	SBO
858	r858	Rc02UL opens	$\text{Rc02UL} \xrightleftharpoons{\text{Rc02UL}} \text{R02UL}$	
859	r859	Rc12UU opens	$\text{Rc12UU} \xrightleftharpoons{\text{Rc12UU}} \text{R12UU}$	
860	r860	Rc12CU opens	$\text{Rc12CU} \xrightleftharpoons{\text{Rc12CU}} \text{R12CU}$	
861	r861	Rc12LU opens	$\text{Rc12LU} \xrightleftharpoons{\text{Rc12LU}} \text{R12LU}$	
862	r862	Rc12UG opens	$\text{Rc12UG} \xrightleftharpoons{\text{Rc12UG}} \text{R12UG}$	
863	r863	Rc12UL opens	$\text{Rc12UL} \xrightleftharpoons{\text{Rc12UL}} \text{R12UL}$	
864	r864	Rc12CG opens	$\text{Rc12CG} \xrightleftharpoons{\text{Rc12CG}} \text{R12CG}$	
865	r865	Rc12CC opens	$\text{Rc12CC} \xrightleftharpoons{\text{Rc12CC}} \text{R12CC}$	
866	r866	Rc12LG opens	$\text{Rc12LG} \xrightleftharpoons{\text{Rc12LG}} \text{R12LG}$	
867	r867	RL00UU closes	$\text{RL00UU} \xrightleftharpoons{\text{RL00UU}} \text{RcL00UU}$	
868	r868	RL10UU closes	$\text{RL10UU} \xrightleftharpoons{\text{RL10UU}} \text{RcL10UU}$	
869	r869	RL10CU closes	$\text{RL10CU} \xrightleftharpoons{\text{RL10CU}} \text{RcL10CU}$	
870	r870	RL10LU closes	$\text{RL10LU} \xrightleftharpoons{\text{RL10LU}} \text{RcL10LU}$	
871	r871	RL01UU closes	$\text{RL01UU} \xrightleftharpoons{\text{RL01UU}} \text{RcL01UU}$	
872	r872	RL01UG closes	$\text{RL01UG} \xrightleftharpoons{\text{RL01UG}} \text{RcL01UG}$	
873	r873	RL01UL closes	$\text{RL01UL} \xrightleftharpoons{\text{RL01UL}} \text{RcL01UL}$	
874	r874	RL11UU closes	$\text{RL11UU} \xrightleftharpoons{\text{RL11UU}} \text{RcL11UU}$	
875	r875	RL11CU closes	$\text{RL11CU} \xrightleftharpoons{\text{RL11CU}} \text{RcL11CU}$	
876	r876	RL11LU closes	$\text{RL11LU} \xrightleftharpoons{\text{RL11LU}} \text{RcL11LU}$	
877	r877	RL11UG closes	$\text{RL11UG} \xrightleftharpoons{\text{RL11UG}} \text{RcL11UG}$	

Nº	Id	Name	Reaction Equation	SBO
878	r878	RL11UL closes	$\text{RL11UL} \xrightleftharpoons{\text{RL11UL}} \text{RcL11UL}$	
879	r879	RL11CG closes	$\text{RL11CG} \xrightleftharpoons{\text{RL11CG}} \text{RcL11CG}$	
880	r880	RL11CC closes	$\text{RL11CC} \xrightleftharpoons{\text{RL11CC}} \text{RcL11CC}$	
881	r881	RL11LG closes	$\text{RL11LG} \xrightleftharpoons{\text{RL11LG}} \text{RcL11LG}$	
882	r882	RL02UU closes	$\text{RL02UU} \xrightleftharpoons{\text{RL02UU}} \text{RcL02UU}$	
883	r883	RL02UG closes	$\text{RL02UG} \xrightleftharpoons{\text{RL02UG}} \text{RcL02UG}$	
884	r884	RL02UL closes	$\text{RL02UL} \xrightleftharpoons{\text{RL02UL}} \text{RcL02UL}$	
885	r885	RL12UU closes	$\text{RL12UU} \xrightleftharpoons{\text{RL12UU}} \text{RcL12UU}$	
886	r886	RL12CU closes	$\text{RL12CU} \xrightleftharpoons{\text{RL12CU}} \text{RcL12CU}$	
887	r887	RL12LU closes	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{RcL12LU}$	
888	r888	RL12UG closes	$\text{RL12UG} \xrightleftharpoons{\text{RL12UG}} \text{RcL12UG}$	
889	r889	RL12UL closes	$\text{RL12UL} \xrightleftharpoons{\text{RL12UL}} \text{RcL12UL}$	
890	r890	RL12CG closes	$\text{RL12CG} \xrightleftharpoons{\text{RL12CG}} \text{RcL12CG}$	
891	r891	RL12CC closes	$\text{RL12CC} \xrightleftharpoons{\text{RL12CC}} \text{RcL12CC}$	
892	r892	RL12LG closes	$\text{RL12LG} \xrightleftharpoons{\text{RL12LG}} \text{RcL12LG}$	
893	r893	RcL00UU opens	$\text{RcL00UU} \xrightleftharpoons{\text{RcL00UU}} \text{RL00UU}$	
894	r894	RcL10UU opens	$\text{RcL10UU} \xrightleftharpoons{\text{RcL10UU}} \text{RL10UU}$	
895	r895	RcL10CU opens	$\text{RcL10CU} \xrightleftharpoons{\text{RcL10CU}} \text{RL10CU}$	
896	r896	RcL10LU opens	$\text{RcL10LU} \xrightleftharpoons{\text{RcL10LU}} \text{RL10LU}$	
897	r897	RcL01UU opens	$\text{RcL01UU} \xrightleftharpoons{\text{RcL01UU}} \text{RL01UU}$	

Nº	Id	Name	Reaction Equation	SBO
898	r898	RcL01UG opens	$\text{RcL01UG} \xrightleftharpoons{\text{RcL01UG}} \text{RL01UG}$	
899	r899	RcL01UL opens	$\text{RcL01UL} \xrightleftharpoons{\text{RcL01UL}} \text{RL01UL}$	
900	r900	RcL11UU opens	$\text{RcL11UU} \xrightleftharpoons{\text{RcL11UU}} \text{RL11UU}$	
901	r901	RcL11CU opens	$\text{RcL11CU} \xrightleftharpoons{\text{RcL11CU}} \text{RL11CU}$	
902	r902	RcL11LU opens	$\text{RcL11LU} \xrightleftharpoons{\text{RcL11LU}} \text{RL11LU}$	
903	r903	RcL11UG opens	$\text{RcL11UG} \xrightleftharpoons{\text{RcL11UG}} \text{RL11UG}$	
904	r904	RcL11UL opens	$\text{RcL11UL} \xrightleftharpoons{\text{RcL11UL}} \text{RL11UL}$	
905	r905	RcL11CG opens	$\text{RcL11CG} \xrightleftharpoons{\text{RcL11CG}} \text{RL11CG}$	
906	r906	RcL11CC opens	$\text{RcL11CC} \xrightleftharpoons{\text{RcL11CC}} \text{RL11CC}$	
907	r907	RcL11LG opens	$\text{RcL11LG} \xrightleftharpoons{\text{RcL11LG}} \text{RL11LG}$	
908	r908	RcL02UU opens	$\text{RcL02UU} \xrightleftharpoons{\text{RcL02UU}} \text{RL02UU}$	
909	r909	RcL02UG opens	$\text{RcL02UG} \xrightleftharpoons{\text{RcL02UG}} \text{RL02UG}$	
910	r910	RcL02UL opens	$\text{RcL02UL} \xrightleftharpoons{\text{RcL02UL}} \text{RL02UL}$	
911	r911	RcL12UU opens	$\text{RcL12UU} \xrightleftharpoons{\text{RcL12UU}} \text{RL12UU}$	
912	r912	RcL12CU opens	$\text{RcL12CU} \xrightleftharpoons{\text{RcL12CU}} \text{RL12CU}$	
913	r913	RcL12LU opens	$\text{RcL12LU} \xrightleftharpoons{\text{RcL12LU}} \text{RL12LU}$	
914	r914	RcL12UG opens	$\text{RcL12UG} \xrightleftharpoons{\text{RcL12UG}} \text{RL12UG}$	
915	r915	RcL12UL opens	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{RL12UL}$	
916	r916	RcL12CG opens	$\text{RcL12CG} \xrightleftharpoons{\text{RcL12CG}} \text{RL12CG}$	
917	r917	RcL12CC opens	$\text{RcL12CC} \xrightleftharpoons{\text{RcL12CC}} \text{RL12CC}$	

Nº	Id	Name	Reaction Equation	SBO
918	r918	RcL12LG opens	$\text{RcL12LG} \xrightleftharpoons{\text{RcL12LG}} \text{RL12LG}$	
919	r919	R00UU binds ligand	$\text{R00UU} + \text{L} \xrightleftharpoons{\text{R00UU, L}} \text{RL00UU}$	
920	r920	R10UU binds ligand	$\text{R10UU} + \text{L} \xrightleftharpoons{\text{R10UU, L}} \text{RL10UU}$	
921	r921	R10CU binds ligand	$\text{R10CU} + \text{L} \xrightleftharpoons{\text{R10CU, L}} \text{RL10CU}$	
922	r922	R10LU binds ligand	$\text{R10LU} + \text{L} \xrightleftharpoons{\text{R10LU, L}} \text{RL10LU}$	
923	r923	R01UU binds ligand	$\text{R01UU} + \text{L} \xrightleftharpoons{\text{R01UU, L}} \text{RL01UU}$	
924	r924	R01UG binds ligand	$\text{R01UG} + \text{L} \xrightleftharpoons{\text{R01UG, L}} \text{RL01UG}$	
925	r925	R01UL binds ligand	$\text{R01UL} + \text{L} \xrightleftharpoons{\text{R01UL, L}} \text{RL01UL}$	
926	r926	R11UU binds ligand	$\text{R11UU} + \text{L} \xrightleftharpoons{\text{R11UU, L}} \text{RL11UU}$	
927	r927	R11CU binds ligand	$\text{R11CU} + \text{L} \xrightleftharpoons{\text{R11CU, L}} \text{RL11CU}$	
928	r928	R11LU binds ligand	$\text{R11LU} + \text{L} \xrightleftharpoons{\text{R11LU, L}} \text{RL11LU}$	
929	r929	R11UG binds ligand	$\text{R11UG} + \text{L} \xrightleftharpoons{\text{R11UG, L}} \text{RL11UG}$	
930	r930	R11UL binds ligand	$\text{R11UL} + \text{L} \xrightleftharpoons{\text{R11UL, L}} \text{RL11UL}$	
931	r931	R11CG binds ligand	$\text{R11CG} + \text{L} \xrightleftharpoons{\text{R11CG, L}} \text{RL11CG}$	
932	r932	R11CC binds ligand	$\text{R11CC} + \text{L} \xrightleftharpoons{\text{R11CC, L}} \text{RL11CC}$	
933	r933	R11LG binds ligand	$\text{R11LG} + \text{L} \xrightleftharpoons{\text{R11LG, L}} \text{RL11LG}$	
934	r934	R02UU binds ligand	$\text{R02UU} + \text{L} \xrightleftharpoons{\text{R02UU, L}} \text{RL02UU}$	
935	r935	R02UG binds ligand	$\text{R02UG} + \text{L} \xrightleftharpoons{\text{R02UG, L}} \text{RL02UG}$	
936	r936	R02UL binds ligand	$\text{R02UL} + \text{L} \xrightleftharpoons{\text{R02UL, L}} \text{RL02UL}$	

Nº	Id	Name	Reaction Equation	SBO
937	r937	R12UU binds ligand	$R12UU + L \xrightleftharpoons{R12UU, L} RL12UU$	
938	r938	R12CU binds ligand	$R12CU + L \xrightleftharpoons{R12CU, L} RL12CU$	
939	r939	R12LU binds ligand	$R12LU + L \xrightleftharpoons{R12LU, L} RL12LU$	
940	r940	R12UG binds ligand	$R12UG + L \xrightleftharpoons{R12UG, L} RL12UG$	
941	r941	R12UL binds ligand	$R12UL + L \xrightleftharpoons{R12UL, L} RL12UL$	
942	r942	R12CG binds ligand	$R12CG + L \xrightleftharpoons{R12CG, L} RL12CG$	
943	r943	R12CC binds ligand	$R12CC + L \xrightleftharpoons{R12CC, L} RL12CC$	
944	r944	R12LG binds ligand	$R12LG + L \xrightleftharpoons{R12LG, L} RL12LG$	
945	r945	Rc00UU binds ligand	$Rc00UU + L \xrightleftharpoons{Rc00UU, L} RcL00UU$	
946	r946	Rc10UU binds ligand	$Rc10UU + L \xrightleftharpoons{Rc10UU, L} RcL10UU$	
947	r947	Rc10CU binds ligand	$Rc10CU + L \xrightleftharpoons{Rc10CU, L} RcL10CU$	
948	r948	Rc10LU binds ligand	$Rc10LU + L \xrightleftharpoons{Rc10LU, L} RcL10LU$	
949	r949	Rc01UU binds ligand	$Rc01UU + L \xrightleftharpoons{Rc01UU, L} RcL01UU$	
950	r950	Rc01UG binds ligand	$Rc01UG + L \xrightleftharpoons{Rc01UG, L} RcL01UG$	
951	r951	Rc01UL binds ligand	$Rc01UL + L \xrightleftharpoons{Rc01UL, L} RcL01UL$	
952	r952	Rc11UU binds ligand	$Rc11UU + L \xrightleftharpoons{Rc11UU, L} RcL11UU$	
953	r953	Rc11CU binds ligand	$Rc11CU + L \xrightleftharpoons{Rc11CU, L} RcL11CU$	
954	r954	Rc11LU binds ligand	$Rc11LU + L \xrightleftharpoons{Rc11LU, L} RcL11LU$	
955	r955	Rc11UG binds ligand	$Rc11UG + L \xrightleftharpoons{Rc11UG, L} RcL11UG$	

Nº	Id	Name	Reaction Equation	SBO
956	r956	Rc11UL binds ligand	$\text{Rc11UL} + \text{L} \xrightleftharpoons{\text{Rc11UL, L}} \text{RcL11UL}$	
957	r957	Rc11CG binds ligand	$\text{Rc11CG} + \text{L} \xrightleftharpoons{\text{Rc11CG, L}} \text{RcL11CG}$	
958	r958	Rc11CC binds ligand	$\text{Rc11CC} + \text{L} \xrightleftharpoons{\text{Rc11CC, L}} \text{RcL11CC}$	
959	r959	Rc11LG binds ligand	$\text{Rc11LG} + \text{L} \xrightleftharpoons{\text{Rc11LG, L}} \text{RcL11LG}$	
960	r960	Rc02UU binds ligand	$\text{Rc02UU} + \text{L} \xrightleftharpoons{\text{Rc02UU, L}} \text{RcL02UU}$	
961	r961	Rc02UG binds ligand	$\text{Rc02UG} + \text{L} \xrightleftharpoons{\text{Rc02UG, L}} \text{RcL02UG}$	
962	r962	Rc02UL binds ligand	$\text{Rc02UL} + \text{L} \xrightleftharpoons{\text{Rc02UL, L}} \text{RcL02UL}$	
963	r963	Rc12UU binds ligand	$\text{Rc12UU} + \text{L} \xrightleftharpoons{\text{Rc12UU, L}} \text{RcL12UU}$	
964	r964	Rc12CU binds ligand	$\text{Rc12CU} + \text{L} \xrightleftharpoons{\text{Rc12CU, L}} \text{RcL12CU}$	
965	r965	Rc12LU binds ligand	$\text{Rc12LU} + \text{L} \xrightleftharpoons{\text{Rc12LU, L}} \text{RcL12LU}$	
966	r966	Rc12UG binds ligand	$\text{Rc12UG} + \text{L} \xrightleftharpoons{\text{Rc12UG, L}} \text{RcL12UG}$	
967	r967	Rc12UL binds ligand	$\text{Rc12UL} + \text{L} \xrightleftharpoons{\text{Rc12UL, L}} \text{RcL12UL}$	
968	r968	Rc12CG binds ligand	$\text{Rc12CG} + \text{L} \xrightleftharpoons{\text{Rc12CG, L}} \text{RcL12CG}$	
969	r969	Rc12CC binds ligand	$\text{Rc12CC} + \text{L} \xrightleftharpoons{\text{Rc12CC, L}} \text{RcL12CC}$	
970	r970	Rc12LG binds ligand	$\text{Rc12LG} + \text{L} \xrightleftharpoons{\text{Rc12LG, L}} \text{RcL12LG}$	
971	r971	Di00UU partner binds ligand	$\text{Di00UU} \xrightleftharpoons{\text{L, Di00UU, L}} \text{Da00UU}$	
972	r972	Di10UU partner binds ligand	$\text{Di10UU} \xrightleftharpoons{\text{L, Di10UU, L}} \text{Da10UU}$	
973	r973	Di10CU partner binds ligand	$\text{Di10CU} \xrightleftharpoons{\text{L, Di10CU, L}} \text{Da10CU}$	
974	r974	Di10LU partner binds ligand	$\text{Di10LU} \xrightleftharpoons{\text{L, Di10LU, L}} \text{Da10LU}$	

Nº	Id	Name	Reaction Equation	SBO
975	r975	Di01UU partner binds ligand	$\text{Di01UU} \xrightleftharpoons{\text{L, Di01UU, L}} \text{Da01UU}$	
976	r976	Di01UG partner binds ligand	$\text{Di01UG} \xrightleftharpoons{\text{L, Di01UG, L}} \text{Da01UG}$	
977	r977	Di01UL partner binds ligand	$\text{Di01UL} \xrightleftharpoons{\text{L, Di01UL, L}} \text{Da01UL}$	
978	r978	Di11UU partner binds ligand	$\text{Di11UU} \xrightleftharpoons{\text{L, Di11UU, L}} \text{Da11UU}$	
979	r979	Di11CU partner binds ligand	$\text{Di11CU} \xrightleftharpoons{\text{L, Di11CU, L}} \text{Da11CU}$	
980	r980	Di11LU partner binds ligand	$\text{Di11LU} \xrightleftharpoons{\text{L, Di11LU, L}} \text{Da11LU}$	
981	r981	Di11UG partner binds ligand	$\text{Di11UG} \xrightleftharpoons{\text{L, Di11UG, L}} \text{Da11UG}$	
982	r982	Di11UL partner binds ligand	$\text{Di11UL} \xrightleftharpoons{\text{L, Di11UL, L}} \text{Da11UL}$	
983	r983	Di11CG partner binds ligand	$\text{Di11CG} \xrightleftharpoons{\text{L, Di11CG, L}} \text{Da11CG}$	
984	r984	Di11CC partner binds ligand	$\text{Di11CC} \xrightleftharpoons{\text{L, Di11CC, L}} \text{Da11CC}$	
985	r985	Di11LG partner binds ligand	$\text{Di11LG} \xrightleftharpoons{\text{L, Di11LG, L}} \text{Da11LG}$	
986	r986	Di02UU partner binds ligand	$\text{Di02UU} \xrightleftharpoons{\text{L, Di02UU, L}} \text{Da02UU}$	
987	r987	Di02UG partner binds ligand	$\text{Di02UG} \xrightleftharpoons{\text{L, Di02UG, L}} \text{Da02UG}$	
988	r988	Di02UL partner binds ligand	$\text{Di02UL} \xrightleftharpoons{\text{L, Di02UL, L}} \text{Da02UL}$	
989	r989	Di12UU partner binds ligand	$\text{Di12UU} \xrightleftharpoons{\text{L, Di12UU, L}} \text{Da12UU}$	
990	r990	Di12CU partner binds ligand	$\text{Di12CU} \xrightleftharpoons{\text{L, Di12CU, L}} \text{Da12CU}$	
991	r991	Di12LU partner binds ligand	$\text{Di12LU} \xrightleftharpoons{\text{L, Di12LU, L}} \text{Da12LU}$	
992	r992	Di12UG partner binds ligand	$\text{Di12UG} \xrightleftharpoons{\text{L, Di12UG, L}} \text{Da12UG}$	
993	r993	Di12UL partner binds ligand	$\text{Di12UL} \xrightleftharpoons{\text{L, Di12UL, L}} \text{Da12UL}$	

Nº	Id	Name	Reaction Equation	SBO
994	r994	Di12CG partner binds ligand	$\text{Di12CG} + \text{L} \xrightleftharpoons{\text{Di12CG, L}} \text{Da12CG}$	
995	r995	Di12CC partner binds ligand	$\text{Di12CC} + \text{L} \xrightleftharpoons{\text{Di12CC, L}} \text{Da12CC}$	
996	r996	Di12LG partner binds ligand	$\text{Di12LG} + \text{L} \xrightleftharpoons{\text{Di12LG, L}} \text{Da12LG}$	
997	r997	Di00UU binds ligand	$\text{Di00UU} + \text{L} \xrightleftharpoons{\text{Di00UU, L}} \text{DiL00UU}$	
998	r998	Di10UU binds ligand	$\text{Di10UU} + \text{L} \xrightleftharpoons{\text{Di10UU, L}} \text{DiL10UU}$	
999	r999	Di10CU binds ligand	$\text{Di10CU} + \text{L} \xrightleftharpoons{\text{Di10CU, L}} \text{DiL10CU}$	
1000	r1000	Di10LU binds ligand	$\text{Di10LU} + \text{L} \xrightleftharpoons{\text{Di10LU, L}} \text{DiL10LU}$	
1001	r1001	Di01UU binds ligand	$\text{Di01UU} + \text{L} \xrightleftharpoons{\text{Di01UU, L}} \text{DiL01UU}$	
1002	r1002	Di01UG binds ligand	$\text{Di01UG} + \text{L} \xrightleftharpoons{\text{Di01UG, L}} \text{DiL01UG}$	
1003	r1003	Di01UL binds ligand	$\text{Di01UL} + \text{L} \xrightleftharpoons{\text{Di01UL, L}} \text{DiL01UL}$	
1004	r1004	Di11UU binds ligand	$\text{Di11UU} + \text{L} \xrightleftharpoons{\text{Di11UU, L}} \text{DiL11UU}$	
1005	r1005	Di11CU binds ligand	$\text{Di11CU} + \text{L} \xrightleftharpoons{\text{Di11CU, L}} \text{DiL11CU}$	
1006	r1006	Di11LU binds ligand	$\text{Di11LU} + \text{L} \xrightleftharpoons{\text{Di11LU, L}} \text{DiL11LU}$	
1007	r1007	Di11UG binds ligand	$\text{Di11UG} + \text{L} \xrightleftharpoons{\text{Di11UG, L}} \text{DiL11UG}$	
1008	r1008	Di11UL binds ligand	$\text{Di11UL} + \text{L} \xrightleftharpoons{\text{Di11UL, L}} \text{DiL11UL}$	
1009	r1009	Di11CG binds ligand	$\text{Di11CG} + \text{L} \xrightleftharpoons{\text{Di11CG, L}} \text{DiL11CG}$	
1010	r1010	Di11CC binds ligand	$\text{Di11CC} + \text{L} \xrightleftharpoons{\text{Di11CC, L}} \text{DiL11CC}$	
1011	r1011	Di11LG binds ligand	$\text{Di11LG} + \text{L} \xrightleftharpoons{\text{Di11LG, L}} \text{DiL11LG}$	
1012	r1012	Di02UU binds ligand	$\text{Di02UU} + \text{L} \xrightleftharpoons{\text{Di02UU, L}} \text{DiL02UU}$	

Nº	Id	Name	Reaction Equation	SBO
1013	r1013	Di02UG binds ligand	$\text{Di02UG} + \text{L} \xrightleftharpoons{\text{Di02UG, L}} \text{DiL02UG}$	
1014	r1014	Di02UL binds ligand	$\text{Di02UL} + \text{L} \xrightleftharpoons{\text{Di02UL, L}} \text{DiL02UL}$	
1015	r1015	Di12UU binds ligand	$\text{Di12UU} + \text{L} \xrightleftharpoons{\text{Di12UU, L}} \text{DiL12UU}$	
1016	r1016	Di12CU binds ligand	$\text{Di12CU} + \text{L} \xrightleftharpoons{\text{Di12CU, L}} \text{DiL12CU}$	
1017	r1017	Di12LU binds ligand	$\text{Di12LU} + \text{L} \xrightleftharpoons{\text{Di12LU, L}} \text{DiL12LU}$	
1018	r1018	Di12UG binds ligand	$\text{Di12UG} + \text{L} \xrightleftharpoons{\text{Di12UG, L}} \text{DiL12UG}$	
1019	r1019	Di12UL binds ligand	$\text{Di12UL} + \text{L} \xrightleftharpoons{\text{Di12UL, L}} \text{DiL12UL}$	
1020	r1020	Di12CG binds ligand	$\text{Di12CG} + \text{L} \xrightleftharpoons{\text{Di12CG, L}} \text{DiL12CG}$	
1021	r1021	Di12CC binds ligand	$\text{Di12CC} + \text{L} \xrightleftharpoons{\text{Di12CC, L}} \text{DiL12CC}$	
1022	r1022	Di12LG binds ligand	$\text{Di12LG} + \text{L} \xrightleftharpoons{\text{Di12LG, L}} \text{DiL12LG}$	
1023	r1023	Da00UU binds ligand	$\text{Da00UU} + \text{L} \xrightleftharpoons{\text{Da00UU, L}} \text{DaL00UU}$	
1024	r1024	Da10UU binds ligand	$\text{Da10UU} + \text{L} \xrightleftharpoons{\text{Da10UU, L}} \text{DaL10UU}$	
1025	r1025	Da10CU binds ligand	$\text{Da10CU} + \text{L} \xrightleftharpoons{\text{Da10CU, L}} \text{DaL10CU}$	
1026	r1026	Da10LU binds ligand	$\text{Da10LU} + \text{L} \xrightleftharpoons{\text{Da10LU, L}} \text{DaL10LU}$	
1027	r1027	Da01UU binds ligand	$\text{Da01UU} + \text{L} \xrightleftharpoons{\text{Da01UU, L}} \text{DaL01UU}$	
1028	r1028	Da01UG binds ligand	$\text{Da01UG} + \text{L} \xrightleftharpoons{\text{Da01UG, L}} \text{DaL01UG}$	
1029	r1029	Da01UL binds ligand	$\text{Da01UL} + \text{L} \xrightleftharpoons{\text{Da01UL, L}} \text{DaL01UL}$	
1030	r1030	Da11UU binds ligand	$\text{Da11UU} + \text{L} \xrightleftharpoons{\text{Da11UU, L}} \text{DaL11UU}$	
1031	r1031	Da11CU binds ligand	$\text{Da11CU} + \text{L} \xrightleftharpoons{\text{Da11CU, L}} \text{DaL11CU}$	

Nº	Id	Name	Reaction Equation	SBO
1032	r1032	Da11LU binds ligand	$\text{Da11LU} + \text{L} \xrightleftharpoons{\text{Da11LU, L}} \text{DaL11LU}$	
1033	r1033	Da11UG binds ligand	$\text{Da11UG} + \text{L} \xrightleftharpoons{\text{Da11UG, L}} \text{DaL11UG}$	
1034	r1034	Da11UL binds ligand	$\text{Da11UL} + \text{L} \xrightleftharpoons{\text{Da11UL, L}} \text{DaL11UL}$	
1035	r1035	Da11CG binds ligand	$\text{Da11CG} + \text{L} \xrightleftharpoons{\text{Da11CG, L}} \text{DaL11CG}$	
1036	r1036	Da11CC binds ligand	$\text{Da11CC} + \text{L} \xrightleftharpoons{\text{Da11CC, L}} \text{DaL11CC}$	
1037	r1037	Da11LG binds ligand	$\text{Da11LG} + \text{L} \xrightleftharpoons{\text{Da11LG, L}} \text{DaL11LG}$	
1038	r1038	Da02UU binds ligand	$\text{Da02UU} + \text{L} \xrightleftharpoons{\text{Da02UU, L}} \text{DaL02UU}$	
1039	r1039	Da02UG binds ligand	$\text{Da02UG} + \text{L} \xrightleftharpoons{\text{Da02UG, L}} \text{DaL02UG}$	
1040	r1040	Da02UL binds ligand	$\text{Da02UL} + \text{L} \xrightleftharpoons{\text{Da02UL, L}} \text{DaL02UL}$	
1041	r1041	Da12UU binds ligand	$\text{Da12UU} + \text{L} \xrightleftharpoons{\text{Da12UU, L}} \text{DaL12UU}$	
1042	r1042	Da12CU binds ligand	$\text{Da12CU} + \text{L} \xrightleftharpoons{\text{Da12CU, L}} \text{DaL12CU}$	
1043	r1043	Da12LU binds ligand	$\text{Da12LU} + \text{L} \xrightleftharpoons{\text{Da12LU, L}} \text{DaL12LU}$	
1044	r1044	Da12UG binds ligand	$\text{Da12UG} + \text{L} \xrightleftharpoons{\text{Da12UG, L}} \text{DaL12UG}$	
1045	r1045	Da12UL binds ligand	$\text{Da12UL} + \text{L} \xrightleftharpoons{\text{Da12UL, L}} \text{DaL12UL}$	
1046	r1046	Da12CG binds ligand	$\text{Da12CG} + \text{L} \xrightleftharpoons{\text{Da12CG, L}} \text{DaL12CG}$	
1047	r1047	Da12CC binds ligand	$\text{Da12CC} + \text{L} \xrightleftharpoons{\text{Da12CC, L}} \text{DaL12CC}$	
1048	r1048	Da12LG binds ligand	$\text{Da12LG} + \text{L} \xrightleftharpoons{\text{Da12LG, L}} \text{DaL12LG}$	
1049	r1049	DiL00UU partner binds ligand	$\text{DiL00UU} \xrightleftharpoons{\text{L, DiL00UU, L}} \text{DaL00UU}$	
1050	r1050	DiL10UU partner binds ligand	$\text{DiL10UU} \xrightleftharpoons{\text{L, DiL10UU, L}} \text{DaL10UU}$	

№	Id	Name	Reaction Equation	SBO
1051	r1051	DiL10CU partner binds ligand	$\text{DiL10CU} \xrightleftharpoons{\text{L, DiL10CU, L}} \text{DaL10CU}$	
1052	r1052	DiL10LU partner binds ligand	$\text{DiL10LU} \xrightleftharpoons{\text{L, DiL10LU, L}} \text{DaL10LU}$	
1053	r1053	DiL01UU partner binds ligand	$\text{DiL01UU} \xrightleftharpoons{\text{L, DiL01UU, L}} \text{DaL01UU}$	
1054	r1054	DiL01UG partner binds ligand	$\text{DiL01UG} \xrightleftharpoons{\text{L, DiL01UG, L}} \text{DaL01UG}$	
1055	r1055	DiL01UL partner binds ligand	$\text{DiL01UL} \xrightleftharpoons{\text{L, DiL01UL, L}} \text{DaL01UL}$	
1056	r1056	DiL11UU partner binds ligand	$\text{DiL11UU} \xrightleftharpoons{\text{L, DiL11UU, L}} \text{DaL11UU}$	
1057	r1057	DiL11CU partner binds ligand	$\text{DiL11CU} \xrightleftharpoons{\text{L, DiL11CU, L}} \text{DaL11CU}$	
1058	r1058	DiL11LU partner binds ligand	$\text{DiL11LU} \xrightleftharpoons{\text{L, DiL11LU, L}} \text{DaL11LU}$	
1059	r1059	DiL11UG partner binds ligand	$\text{DiL11UG} \xrightleftharpoons{\text{L, DiL11UG, L}} \text{DaL11UG}$	
1060	r1060	DiL11UL partner binds ligand	$\text{DiL11UL} \xrightleftharpoons{\text{L, DiL11UL, L}} \text{DaL11UL}$	
1061	r1061	DiL11CG partner binds ligand	$\text{DiL11CG} \xrightleftharpoons{\text{L, DiL11CG, L}} \text{DaL11CG}$	
1062	r1062	DiL11CC partner binds ligand	$\text{DiL11CC} \xrightleftharpoons{\text{L, DiL11CC, L}} \text{DaL11CC}$	
1063	r1063	DiL11LG partner binds ligand	$\text{DiL11LG} \xrightleftharpoons{\text{L, DiL11LG, L}} \text{DaL11LG}$	
1064	r1064	DiL02UU partner binds ligand	$\text{DiL02UU} \xrightleftharpoons{\text{L, DiL02UU, L}} \text{DaL02UU}$	
1065	r1065	DiL02UG partner binds ligand	$\text{DiL02UG} \xrightleftharpoons{\text{L, DiL02UG, L}} \text{DaL02UG}$	
1066	r1066	DiL02UL partner binds ligand	$\text{DiL02UL} \xrightleftharpoons{\text{L, DiL02UL, L}} \text{DaL02UL}$	
1067	r1067	DiL12UU partner binds ligand	$\text{DiL12UU} \xrightleftharpoons{\text{L, DiL12UU, L}} \text{DaL12UU}$	
1068	r1068	DiL12CU partner binds ligand	$\text{DiL12CU} \xrightleftharpoons{\text{L, DiL12CU, L}} \text{DaL12CU}$	
1069	r1069	DiL12LU partner binds ligand	$\text{DiL12LU} \xrightleftharpoons{\text{L, DiL12LU, L}} \text{DaL12LU}$	

Nº	Id	Name	Reaction Equation	SBO
1070	r1070	DiL12UG partner binds ligand	$\text{DiL12UG} \xrightleftharpoons{\text{L, DiL12UG, L}} \text{DaL12UG}$	
1071	r1071	DiL12UL partner binds ligand	$\text{DiL12UL} \xrightleftharpoons{\text{L, DiL12UL, L}} \text{DaL12UL}$	
1072	r1072	DiL12CG partner binds ligand	$\text{DiL12CG} \xrightleftharpoons{\text{L, DiL12CG, L}} \text{DaL12CG}$	
1073	r1073	DiL12CC partner binds ligand	$\text{DiL12CC} \xrightleftharpoons{\text{L, DiL12CC, L}} \text{DaL12CC}$	
1074	r1074	DiL12LG partner binds ligand	$\text{DiL12LG} \xrightleftharpoons{\text{L, DiL12LG, L}} \text{DaL12LG}$	
1075	r1075	RL00UU dissociates ligand	$\text{RL00UU} \xrightleftharpoons{\text{RL00UU}} \text{R00UU} + \text{L}$	
1076	r1076	RL10UU dissociates ligand	$\text{RL10UU} \xrightleftharpoons{\text{RL10UU}} \text{R10UU} + \text{L}$	
1077	r1077	RL10CU dissociates ligand	$\text{RL10CU} \xrightleftharpoons{\text{RL10CU}} \text{R10CU} + \text{L}$	
1078	r1078	RL10LU dissociates ligand	$\text{RL10LU} \xrightleftharpoons{\text{RL10LU}} \text{R10LU} + \text{L}$	
1079	r1079	RL01UU dissociates ligand	$\text{RL01UU} \xrightleftharpoons{\text{RL01UU}} \text{R01UU} + \text{L}$	
1080	r1080	RL01UG dissociates ligand	$\text{RL01UG} \xrightleftharpoons{\text{RL01UG}} \text{R01UG} + \text{L}$	
1081	r1081	RL01UL dissociates ligand	$\text{RL01UL} \xrightleftharpoons{\text{RL01UL}} \text{R01UL} + \text{L}$	
1082	r1082	RL11UU dissociates ligand	$\text{RL11UU} \xrightleftharpoons{\text{RL11UU}} \text{R11UU} + \text{L}$	
1083	r1083	RL11CU dissociates ligand	$\text{RL11CU} \xrightleftharpoons{\text{RL11CU}} \text{R11CU} + \text{L}$	
1084	r1084	RL11LU dissociates ligand	$\text{RL11LU} \xrightleftharpoons{\text{RL11LU}} \text{R11LU} + \text{L}$	
1085	r1085	RL11UG dissociates ligand	$\text{RL11UG} \xrightleftharpoons{\text{RL11UG}} \text{R11UG} + \text{L}$	
1086	r1086	RL11UL dissociates ligand	$\text{RL11UL} \xrightleftharpoons{\text{RL11UL}} \text{R11UL} + \text{L}$	
1087	r1087	RL11CG dissociates ligand	$\text{RL11CG} \xrightleftharpoons{\text{RL11CG}} \text{R11CG} + \text{L}$	
1088	r1088	RL11CC dissociates ligand	$\text{RL11CC} \xrightleftharpoons{\text{RL11CC}} \text{R11CC} + \text{L}$	
1089	r1089	RL11LG dissociates ligand	$\text{RL11LG} \xrightleftharpoons{\text{RL11LG}} \text{R11LG} + \text{L}$	

Nº	Id	Name	Reaction Equation	SBO
1090	r1090	RL02UU dissociates ligand	$\text{RL02UU} \xrightleftharpoons{\text{RL02UU}} \text{R02UU} + \text{L}$	
1091	r1091	RL02UG dissociates ligand	$\text{RL02UG} \xrightleftharpoons{\text{RL02UG}} \text{R02UG} + \text{L}$	
1092	r1092	RL02UL dissociates ligand	$\text{RL02UL} \xrightleftharpoons{\text{RL02UL}} \text{R02UL} + \text{L}$	
1093	r1093	RL12UU dissociates ligand	$\text{RL12UU} \xrightleftharpoons{\text{RL12UU}} \text{R12UU} + \text{L}$	
1094	r1094	RL12CU dissociates ligand	$\text{RL12CU} \xrightleftharpoons{\text{RL12CU}} \text{R12CU} + \text{L}$	
1095	r1095	RL12LU dissociates ligand	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{R12LU} + \text{L}$	
1096	r1096	RL12UG dissociates ligand	$\text{RL12UG} \xrightleftharpoons{\text{RL12UG}} \text{R12UG} + \text{L}$	
1097	r1097	RL12UL dissociates ligand	$\text{RL12UL} \xrightleftharpoons{\text{RL12UL}} \text{R12UL} + \text{L}$	
1098	r1098	RL12CG dissociates ligand	$\text{RL12CG} \xrightleftharpoons{\text{RL12CG}} \text{R12CG} + \text{L}$	
1099	r1099	RL12CC dissociates ligand	$\text{RL12CC} \xrightleftharpoons{\text{RL12CC}} \text{R12CC} + \text{L}$	
1100	r1100	RL12LG dissociates ligand	$\text{RL12LG} \xrightleftharpoons{\text{RL12LG}} \text{R12LG} + \text{L}$	
1101	r1101	RcL00UU dissociates ligand	$\text{RcL00UU} \xrightleftharpoons{\text{RcL00UU}} \text{Rc00UU} + \text{L}$	
1102	r1102	RcL10UU dissociates ligand	$\text{RcL10UU} \xrightleftharpoons{\text{RcL10UU}} \text{Rc10UU} + \text{L}$	
1103	r1103	RcL10CU dissociates ligand	$\text{RcL10CU} \xrightleftharpoons{\text{RcL10CU}} \text{Rc10CU} + \text{L}$	
1104	r1104	RcL10LU dissociates ligand	$\text{RcL10LU} \xrightleftharpoons{\text{RcL10LU}} \text{Rc10LU} + \text{L}$	
1105	r1105	RcL01UU dissociates ligand	$\text{RcL01UU} \xrightleftharpoons{\text{RcL01UU}} \text{Rc01UU} + \text{L}$	
1106	r1106	RcL01UG dissociates ligand	$\text{RcL01UG} \xrightleftharpoons{\text{RcL01UG}} \text{Rc01UG} + \text{L}$	
1107	r1107	RcL01UL dissociates ligand	$\text{RcL01UL} \xrightleftharpoons{\text{RcL01UL}} \text{Rc01UL} + \text{L}$	
1108	r1108	RcL11UU dissociates ligand	$\text{RcL11UU} \xrightleftharpoons{\text{RcL11UU}} \text{Rc11UU} + \text{L}$	
1109	r1109	RcL11CU dissociates ligand	$\text{RcL11CU} \xrightleftharpoons{\text{RcL11CU}} \text{Rc11CU} + \text{L}$	

Nº	Id	Name	Reaction Equation	SBO
1110	r1110	RcL11LU dissociates ligand	$\text{RcL11LU} \xrightleftharpoons{\text{RcL11LU}} \text{Rc11LU} + \text{L}$	
1111	r1111	RcL11UG dissociates ligand	$\text{RcL11UG} \xrightleftharpoons{\text{RcL11UG}} \text{Rc11UG} + \text{L}$	
1112	r1112	RcL11UL dissociates ligand	$\text{RcL11UL} \xrightleftharpoons{\text{RcL11UL}} \text{Rc11UL} + \text{L}$	
1113	r1113	RcL11CG dissociates ligand	$\text{RcL11CG} \xrightleftharpoons{\text{RcL11CG}} \text{Rc11CG} + \text{L}$	
1114	r1114	RcL11CC dissociates ligand	$\text{RcL11CC} \xrightleftharpoons{\text{RcL11CC}} \text{Rc11CC} + \text{L}$	
1115	r1115	RcL11LG dissociates ligand	$\text{RcL11LG} \xrightleftharpoons{\text{RcL11LG}} \text{Rc11LG} + \text{L}$	
1116	r1116	RcL02UU dissociates ligand	$\text{RcL02UU} \xrightleftharpoons{\text{RcL02UU}} \text{Rc02UU} + \text{L}$	
1117	r1117	RcL02UG dissociates ligand	$\text{RcL02UG} \xrightleftharpoons{\text{RcL02UG}} \text{Rc02UG} + \text{L}$	
1118	r1118	RcL02UL dissociates ligand	$\text{RcL02UL} \xrightleftharpoons{\text{RcL02UL}} \text{Rc02UL} + \text{L}$	
1119	r1119	RcL12UU dissociates ligand	$\text{RcL12UU} \xrightleftharpoons{\text{RcL12UU}} \text{Rc12UU} + \text{L}$	
1120	r1120	RcL12CU dissociates ligand	$\text{RcL12CU} \xrightleftharpoons{\text{RcL12CU}} \text{Rc12CU} + \text{L}$	
1121	r1121	RcL12LU dissociates ligand	$\text{RcL12LU} \xrightleftharpoons{\text{RcL12LU}} \text{Rc12LU} + \text{L}$	
1122	r1122	RcL12UG dissociates ligand	$\text{RcL12UG} \xrightleftharpoons{\text{RcL12UG}} \text{Rc12UG} + \text{L}$	
1123	r1123	RcL12UL dissociates ligand	$\text{RcL12UL} \xrightleftharpoons{\text{RcL12UL}} \text{Rc12UL} + \text{L}$	
1124	r1124	RcL12CG dissociates ligand	$\text{RcL12CG} \xrightleftharpoons{\text{RcL12CG}} \text{Rc12CG} + \text{L}$	
1125	r1125	RcL12CC dissociates ligand	$\text{RcL12CC} \xrightleftharpoons{\text{RcL12CC}} \text{Rc12CC} + \text{L}$	
1126	r1126	RcL12LG dissociates ligand	$\text{RcL12LG} \xrightleftharpoons{\text{RcL12LG}} \text{Rc12LG} + \text{L}$	
1127	r1127	DaL00UU partner dissociates its ligand	$\text{DaL00UU} \xrightleftharpoons{\text{DaL00UU}} \text{DiL00UU}$	
1128	r1128	DaL10UU partner dissociates its ligand	$\text{DaL10UU} \xrightleftharpoons{\text{DaL10UU}} \text{DiL10UU}$	
1129	r1129	DaL10CU partner dissociates its ligand	$\text{DaL10CU} \xrightleftharpoons{\text{DaL10CU}} \text{DiL10CU}$	

Nº	Id	Name	Reaction Equation	SBO
1130	r1130	DaL10LU partner dissociates its ligand	$\text{DaL10LU} \xrightleftharpoons{\text{DaL10LU}} \text{DiL10LU}$	
1131	r1131	DaL01UU partner dissociates its ligand	$\text{DaL01UU} \xrightleftharpoons{\text{DaL01UU}} \text{DiL01UU}$	
1132	r1132	DaL01UG partner dissociates its ligand	$\text{DaL01UG} \xrightleftharpoons{\text{DaL01UG}} \text{DiL01UG}$	
1133	r1133	DaL01UL partner dissociates its ligand	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{DiL01UL}$	
1134	r1134	DaL11UU partner dissociates its ligand	$\text{DaL11UU} \xrightleftharpoons{\text{DaL11UU}} \text{DiL11UU}$	
1135	r1135	DaL11CU partner dissociates its ligand	$\text{DaL11CU} \xrightleftharpoons{\text{DaL11CU}} \text{DiL11CU}$	
1136	r1136	DaL11LU partner dissociates its ligand	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{DiL11LU}$	
1137	r1137	DaL11UG partner dissociates its ligand	$\text{DaL11UG} \xrightleftharpoons{\text{DaL11UG}} \text{DiL11UG}$	
1138	r1138	DaL11UL partner dissociates its ligand	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{DiL11UL}$	
1139	r1139	DaL11CG partner dissociates its ligand	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{DiL11CG}$	
1140	r1140	DaL11CC partner dissociates its ligand	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{DiL11CC}$	
1141	r1141	DaL11LG partner dissociates its ligand	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{DiL11LG}$	
1142	r1142	DaL02UU partner dissociates its ligand	$\text{DaL02UU} \xrightleftharpoons{\text{DaL02UU}} \text{DiL02UU}$	
1143	r1143	DaL02UG partner dissociates its ligand	$\text{DaL02UG} \xrightleftharpoons{\text{DaL02UG}} \text{DiL02UG}$	
1144	r1144	DaL02UL partner dissociates its ligand	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{DiL02UL}$	
1145	r1145	DaL12UU partner dissociates its ligand	$\text{DaL12UU} \xrightleftharpoons{\text{DaL12UU}} \text{DiL12UU}$	
1146	r1146	DaL12CU partner dissociates its ligand	$\text{DaL12CU} \xrightleftharpoons{\text{DaL12CU}} \text{DiL12CU}$	
1147	r1147	DaL12LU partner dissociates its ligand	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{DiL12LU}$	
1148	r1148	DaL12UG partner dissociates its ligand	$\text{DaL12UG} \xrightleftharpoons{\text{DaL12UG}} \text{DiL12UG}$	
1149	r1149	DaL12UL partner dissociates its ligand	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{DiL12UL}$	

Nº	Id	Name	Reaction Equation	SBO
1150	r1150	DaL12CG partner dissociates its ligand	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{DiL12CG}$	
1151	r1151	DaL12CC partner dissociates its ligand	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{DiL12CC}$	
1152	r1152	DaL12LG partner dissociates its ligand	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{DiL12LG}$	
1153	r1153	DaL00UU dissociates its ligand	$\text{DaL00UU} \xrightleftharpoons{\text{DaL00UU}} \text{Da00UU} + \text{L}$	
1154	r1154	DaL10UU dissociates its ligand	$\text{DaL10UU} \xrightleftharpoons{\text{DaL10UU}} \text{Da10UU} + \text{L}$	
1155	r1155	DaL10CU dissociates its ligand	$\text{DaL10CU} \xrightleftharpoons{\text{DaL10CU}} \text{Da10CU} + \text{L}$	
1156	r1156	DaL10LU dissociates its ligand	$\text{DaL10LU} \xrightleftharpoons{\text{DaL10LU}} \text{Da10LU} + \text{L}$	
1157	r1157	DaL01UU dissociates its ligand	$\text{DaL01UU} \xrightleftharpoons{\text{DaL01UU}} \text{Da01UU} + \text{L}$	
1158	r1158	DaL01UG dissociates its ligand	$\text{DaL01UG} \xrightleftharpoons{\text{DaL01UG}} \text{Da01UG} + \text{L}$	
1159	r1159	DaL01UL dissociates its ligand	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{Da01UL} + \text{L}$	
1160	r1160	DaL11UU dissociates its ligand	$\text{DaL11UU} \xrightleftharpoons{\text{DaL11UU}} \text{Da11UU} + \text{L}$	
1161	r1161	DaL11CU dissociates its ligand	$\text{DaL11CU} \xrightleftharpoons{\text{DaL11CU}} \text{Da11CU} + \text{L}$	
1162	r1162	DaL11LU dissociates its ligand	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{Da11LU} + \text{L}$	
1163	r1163	DaL11UG dissociates its ligand	$\text{DaL11UG} \xrightleftharpoons{\text{DaL11UG}} \text{Da11UG} + \text{L}$	
1164	r1164	DaL11UL dissociates its ligand	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{Da11UL} + \text{L}$	
1165	r1165	DaL11CG dissociates its ligand	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{Da11CG} + \text{L}$	
1166	r1166	DaL11CC dissociates its ligand	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{Da11CC} + \text{L}$	
1167	r1167	DaL11LG dissociates its ligand	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{Da11LG} + \text{L}$	
1168	r1168	DaL02UU dissociates its ligand	$\text{DaL02UU} \xrightleftharpoons{\text{DaL02UU}} \text{Da02UU} + \text{L}$	
1169	r1169	DaL02UG dissociates its ligand	$\text{DaL02UG} \xrightleftharpoons{\text{DaL02UG}} \text{Da02UG} + \text{L}$	

Nº	Id	Name	Reaction Equation	SBO
1170	r1170	DaL02UL dissociates its ligand	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{Da02UL} + \text{L}$	
1171	r1171	DaL12UU dissociates its ligand	$\text{DaL12UU} \xrightleftharpoons{\text{DaL12UU}} \text{Da12UU} + \text{L}$	
1172	r1172	DaL12CU dissociates its ligand	$\text{DaL12CU} \xrightleftharpoons{\text{DaL12CU}} \text{Da12CU} + \text{L}$	
1173	r1173	DaL12LU dissociates its ligand	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{Da12LU} + \text{L}$	
1174	r1174	DaL12UG dissociates its ligand	$\text{DaL12UG} \xrightleftharpoons{\text{DaL12UG}} \text{Da12UG} + \text{L}$	
1175	r1175	DaL12UL dissociates its ligand	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{Da12UL} + \text{L}$	
1176	r1176	DaL12CG dissociates its ligand	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{Da12CG} + \text{L}$	
1177	r1177	DaL12CC dissociates its ligand	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{Da12CC} + \text{L}$	
1178	r1178	DaL12LG dissociates its ligand	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{Da12LG} + \text{L}$	
1179	r1179	Da00UU partner dissociates its ligand	$\text{Da00UU} \xrightleftharpoons{\text{Da00UU}} \text{Di00UU}$	
1180	r1180	Da10UU partner dissociates its ligand	$\text{Da10UU} \xrightleftharpoons{\text{Da10UU}} \text{Di10UU}$	
1181	r1181	Da10CU partner dissociates its ligand	$\text{Da10CU} \xrightleftharpoons{\text{Da10CU}} \text{Di10CU}$	
1182	r1182	Da10LU partner dissociates its ligand	$\text{Da10LU} \xrightleftharpoons{\text{Da10LU}} \text{Di10LU}$	
1183	r1183	Da01UU partner dissociates its ligand	$\text{Da01UU} \xrightleftharpoons{\text{Da01UU}} \text{Di01UU}$	
1184	r1184	Da01UG partner dissociates its ligand	$\text{Da01UG} \xrightleftharpoons{\text{Da01UG}} \text{Di01UG}$	
1185	r1185	Da01UL partner dissociates its ligand	$\text{Da01UL} \xrightleftharpoons{\text{Da01UL}} \text{Di01UL}$	
1186	r1186	Da11UU partner dissociates its ligand	$\text{Da11UU} \xrightleftharpoons{\text{Da11UU}} \text{Di11UU}$	
1187	r1187	Da11CU partner dissociates its ligand	$\text{Da11CU} \xrightleftharpoons{\text{Da11CU}} \text{Di11CU}$	
1188	r1188	Da11LU partner dissociates its ligand	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{Di11LU}$	
1189	r1189	Da11UG partner dissociates its ligand	$\text{Da11UG} \xrightleftharpoons{\text{Da11UG}} \text{Di11UG}$	

Nº	Id	Name	Reaction Equation	SBO
1190	r1190	Da11UL partner dissociates its ligand	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{Di11UL}$	
1191	r1191	Da11CG partner dissociates its ligand	$\text{Da11CG} \xrightleftharpoons{\text{Da11CG}} \text{Di11CG}$	
1192	r1192	Da11CC partner dissociates its ligand	$\text{Da11CC} \xrightleftharpoons{\text{Da11CC}} \text{Di11CC}$	
1193	r1193	Da11LG partner dissociates its ligand	$\text{Da11LG} \xrightleftharpoons{\text{Da11LG}} \text{Di11LG}$	
1194	r1194	Da02UU partner dissociates its ligand	$\text{Da02UU} \xrightleftharpoons{\text{Da02UU}} \text{Di02UU}$	
1195	r1195	Da02UG partner dissociates its ligand	$\text{Da02UG} \xrightleftharpoons{\text{Da02UG}} \text{Di02UG}$	
1196	r1196	Da02UL partner dissociates its ligand	$\text{Da02UL} \xrightleftharpoons{\text{Da02UL}} \text{Di02UL}$	
1197	r1197	Da12UU partner dissociates its ligand	$\text{Da12UU} \xrightleftharpoons{\text{Da12UU}} \text{Di12UU}$	
1198	r1198	Da12CU partner dissociates its ligand	$\text{Da12CU} \xrightleftharpoons{\text{Da12CU}} \text{Di12CU}$	
1199	r1199	Da12LU partner dissociates its ligand	$\text{Da12LU} \xrightleftharpoons{\text{Da12LU}} \text{Di12LU}$	
1200	r1200	Da12UG partner dissociates its ligand	$\text{Da12UG} \xrightleftharpoons{\text{Da12UG}} \text{Di12UG}$	
1201	r1201	Da12UL partner dissociates its ligand	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{Di12UL}$	
1202	r1202	Da12CG partner dissociates its ligand	$\text{Da12CG} \xrightleftharpoons{\text{Da12CG}} \text{Di12CG}$	
1203	r1203	Da12CC partner dissociates its ligand	$\text{Da12CC} \xrightleftharpoons{\text{Da12CC}} \text{Di12CC}$	
1204	r1204	Da12LG partner dissociates its ligand	$\text{Da12LG} \xrightleftharpoons{\text{Da12LG}} \text{Di12LG}$	
1205	r1205	DiL00UU dissociates its ligand	$\text{DiL00UU} \xrightleftharpoons{\text{DiL00UU}} \text{Di00UU} + \text{L}$	
1206	r1206	DiL10UU dissociates its ligand	$\text{DiL10UU} \xrightleftharpoons{\text{DiL10UU}} \text{Di10UU} + \text{L}$	
1207	r1207	DiL10CU dissociates its ligand	$\text{DiL10CU} \xrightleftharpoons{\text{DiL10CU}} \text{Di10CU} + \text{L}$	
1208	r1208	DiL10LU dissociates its ligand	$\text{DiL10LU} \xrightleftharpoons{\text{DiL10LU}} \text{Di10LU} + \text{L}$	
1209	r1209	DiL01UU dissociates its ligand	$\text{DiL01UU} \xrightleftharpoons{\text{DiL01UU}} \text{Di01UU} + \text{L}$	

Nº	Id	Name	Reaction Equation	SBO
1210	r1210	DiL01UG dissociates its ligand	$\text{DiL01UG} \xrightleftharpoons{\text{DiL01UG}} \text{Di01UG} + \text{L}$	
1211	r1211	DiL01UL dissociates its ligand	$\text{DiL01UL} \xrightleftharpoons{\text{DiL01UL}} \text{Di01UL} + \text{L}$	
1212	r1212	DiL11UU dissociates its ligand	$\text{DiL11UU} \xrightleftharpoons{\text{DiL11UU}} \text{Di11UU} + \text{L}$	
1213	r1213	DiL11CU dissociates its ligand	$\text{DiL11CU} \xrightleftharpoons{\text{DiL11CU}} \text{Di11CU} + \text{L}$	
1214	r1214	DiL11LU dissociates its ligand	$\text{DiL11LU} \xrightleftharpoons{\text{DiL11LU}} \text{Di11LU} + \text{L}$	
1215	r1215	DiL11UG dissociates its ligand	$\text{DiL11UG} \xrightleftharpoons{\text{DiL11UG}} \text{Di11UG} + \text{L}$	
1216	r1216	DiL11UL dissociates its ligand	$\text{DiL11UL} \xrightleftharpoons{\text{DiL11UL}} \text{Di11UL} + \text{L}$	
1217	r1217	DiL11CG dissociates its ligand	$\text{DiL11CG} \xrightleftharpoons{\text{DiL11CG}} \text{Di11CG} + \text{L}$	
1218	r1218	DiL11CC dissociates its ligand	$\text{DiL11CC} \xrightleftharpoons{\text{DiL11CC}} \text{Di11CC} + \text{L}$	
1219	r1219	DiL11LG dissociates its ligand	$\text{DiL11LG} \xrightleftharpoons{\text{DiL11LG}} \text{Di11LG} + \text{L}$	
1220	r1220	DiL02UU dissociates its ligand	$\text{DiL02UU} \xrightleftharpoons{\text{DiL02UU}} \text{Di02UU} + \text{L}$	
1221	r1221	DiL02UG dissociates its ligand	$\text{DiL02UG} \xrightleftharpoons{\text{DiL02UG}} \text{Di02UG} + \text{L}$	
1222	r1222	DiL02UL dissociates its ligand	$\text{DiL02UL} \xrightleftharpoons{\text{DiL02UL}} \text{Di02UL} + \text{L}$	
1223	r1223	DiL12UU dissociates its ligand	$\text{DiL12UU} \xrightleftharpoons{\text{DiL12UU}} \text{Di12UU} + \text{L}$	
1224	r1224	DiL12CU dissociates its ligand	$\text{DiL12CU} \xrightleftharpoons{\text{DiL12CU}} \text{Di12CU} + \text{L}$	
1225	r1225	DiL12LU dissociates its ligand	$\text{DiL12LU} \xrightleftharpoons{\text{DiL12LU}} \text{Di12LU} + \text{L}$	
1226	r1226	DiL12UG dissociates its ligand	$\text{DiL12UG} \xrightleftharpoons{\text{DiL12UG}} \text{Di12UG} + \text{L}$	
1227	r1227	DiL12UL dissociates its ligand	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{Di12UL} + \text{L}$	
1228	r1228	DiL12CG dissociates its ligand	$\text{DiL12CG} \xrightleftharpoons{\text{DiL12CG}} \text{Di12CG} + \text{L}$	
1229	r1229	DiL12CC dissociates its ligand	$\text{DiL12CC} \xrightleftharpoons{\text{DiL12CC}} \text{Di12CC} + \text{L}$	

Nº	Id	Name	Reaction Equation	SBO
1230	r1230	DiL12LG dissociates its ligand	$\text{DiL12LG} \xrightleftharpoons{\text{DiL12LG}} \text{Di12LG} + \text{L}$	
1231	r1231	R00UU dimerizes to Di00UU	$\text{R00UU} \xrightleftharpoons[\text{SumM, R00UU, SumM}]{} \text{Di00UU}$	
1232	r1232	R10UU dimerizes to Di10UU	$\text{R10UU} \xrightleftharpoons[\text{SumM, R10UU, SumM}]{} \text{Di10UU}$	
1233	r1233	R10CU dimerizes to Di10CU	$\text{R10CU} \xrightleftharpoons[\text{SumM, R10CU, SumM}]{} \text{Di10CU}$	
1234	r1234	R10LU dimerizes to Di10LU	$\text{R10LU} \xrightleftharpoons[\text{SumM, R10LU, SumM}]{} \text{Di10LU}$	
1235	r1235	R01UU dimerizes to Di01UU	$\text{R01UU} \xrightleftharpoons[\text{SumM, R01UU, SumM}]{} \text{Di01UU}$	
1236	r1236	R01UG dimerizes to Di01UG	$\text{R01UG} \xrightleftharpoons[\text{SumM, R01UG, SumM}]{} \text{Di01UG}$	
1237	r1237	R01UL dimerizes to Di01UL	$\text{R01UL} \xrightleftharpoons[\text{SumM, R01UL, SumM}]{} \text{Di01UL}$	
1238	r1238	R11UU dimerizes to Di11UU	$\text{R11UU} \xrightleftharpoons[\text{SumM, R11UU, SumM}]{} \text{Di11UU}$	
1239	r1239	R11CU dimerizes to Di11CU	$\text{R11CU} \xrightleftharpoons[\text{SumM, R11CU, SumM}]{} \text{Di11CU}$	
1240	r1240	R11LU dimerizes to Di11LU	$\text{R11LU} \xrightleftharpoons[\text{SumM, R11LU, SumM}]{} \text{Di11LU}$	
1241	r1241	R11UG dimerizes to Di11UG	$\text{R11UG} \xrightleftharpoons[\text{SumM, R11UG, SumM}]{} \text{Di11UG}$	
1242	r1242	R11UL dimerizes to Di11UL	$\text{R11UL} \xrightleftharpoons[\text{SumM, R11UL, SumM}]{} \text{Di11UL}$	
1243	r1243	R11CG dimerizes to Di11CG	$\text{R11CG} \xrightleftharpoons[\text{SumM, R11CG, SumM}]{} \text{Di11CG}$	
1244	r1244	R11CC dimerizes to Di11CC	$\text{R11CC} \xrightleftharpoons[\text{SumM, R11CC, SumM}]{} \text{Di11CC}$	
1245	r1245	R11LG dimerizes to Di11LG	$\text{R11LG} \xrightleftharpoons[\text{SumM, R11LG, SumM}]{} \text{Di11LG}$	
1246	r1246	R02UU dimerizes to Di02UU	$\text{R02UU} \xrightleftharpoons[\text{SumM, R02UU, SumM}]{} \text{Di02UU}$	
1247	r1247	R02UG dimerizes to Di02UG	$\text{R02UG} \xrightleftharpoons[\text{SumM, R02UG, SumM}]{} \text{Di02UG}$	
1248	r1248	R02UL dimerizes to Di02UL	$\text{R02UL} \xrightleftharpoons[\text{SumM, R02UL, SumM}]{} \text{Di02UL}$	

Nº	Id	Name	Reaction Equation	SBO
1249	r1249	R12UU dimerizes to Di12UU	$R12UU \xrightleftharpoons{\text{SumM, R12UU, SumM}} Di12UU$	
1250	r1250	R12CU dimerizes to Di12CU	$R12CU \xrightleftharpoons{\text{SumM, R12CU, SumM}} Di12CU$	
1251	r1251	R12LU dimerizes to Di12LU	$R12LU \xrightleftharpoons{\text{SumM, R12LU, SumM}} Di12LU$	
1252	r1252	R12UG dimerizes to Di12UG	$R12UG \xrightleftharpoons{\text{SumM, R12UG, SumM}} Di12UG$	
1253	r1253	R12UL dimerizes to Di12UL	$R12UL \xrightleftharpoons{\text{SumM, R12UL, SumM}} Di12UL$	
1254	r1254	R12CG dimerizes to Di12CG	$R12CG \xrightleftharpoons{\text{SumM, R12CG, SumM}} Di12CG$	
1255	r1255	R12CC dimerizes to Di12CC	$R12CC \xrightleftharpoons{\text{SumM, R12CC, SumM}} Di12CC$	
1256	r1256	R12LG dimerizes to Di12LG	$R12LG \xrightleftharpoons{\text{SumM, R12LG, SumM}} Di12LG$	
1257	r1257	R00UU dimerizes to Da00UU	$R00UU \xrightleftharpoons{\text{SumML, R00UU, SumML}} Da00UU$	
1258	r1258	R10UU dimerizes to Da10UU	$R10UU \xrightleftharpoons{\text{SumML, R10UU, SumML}} Da10UU$	
1259	r1259	R10CU dimerizes to Da10CU	$R10CU \xrightleftharpoons{\text{SumML, R10CU, SumML}} Da10CU$	
1260	r1260	R10LU dimerizes to Da10LU	$R10LU \xrightleftharpoons{\text{SumML, R10LU, SumML}} Da10LU$	
1261	r1261	R01UU dimerizes to Da01UU	$R01UU \xrightleftharpoons{\text{SumML, R01UU, SumML}} Da01UU$	
1262	r1262	R01UG dimerizes to Da01UG	$R01UG \xrightleftharpoons{\text{SumML, R01UG, SumML}} Da01UG$	
1263	r1263	R01UL dimerizes to Da01UL	$R01UL \xrightleftharpoons{\text{SumML, R01UL, SumML}} Da01UL$	
1264	r1264	R11UU dimerizes to Da11UU	$R11UU \xrightleftharpoons{\text{SumML, R11UU, SumML}} Da11UU$	
1265	r1265	R11CU dimerizes to Da11CU	$R11CU \xrightleftharpoons{\text{SumML, R11CU, SumML}} Da11CU$	
1266	r1266	R11LU dimerizes to Da11LU	$R11LU \xrightleftharpoons{\text{SumML, R11LU, SumML}} Da11LU$	
1267	r1267	R11UG dimerizes to Da11UG	$R11UG \xrightleftharpoons{\text{SumML, R11UG, SumML}} Da11UG$	

Nº	Id	Name	Reaction Equation	SBO
1268	r1268	R11UL dimerizes to Da11UL	$R11UL \xrightleftharpoons{\text{SumML, R11UL, SumML}} Da11UL$	
1269	r1269	R11CG dimerizes to Da11CG	$R11CG \xrightleftharpoons{\text{SumML, R11CG, SumML}} Da11CG$	
1270	r1270	R11CC dimerizes to Da11CC	$R11CC \xrightleftharpoons{\text{SumML, R11CC, SumML}} Da11CC$	
1271	r1271	R11LG dimerizes to Da11LG	$R11LG \xrightleftharpoons{\text{SumML, R11LG, SumML}} Da11LG$	
1272	r1272	R02UU dimerizes to Da02UU	$R02UU \xrightleftharpoons{\text{SumML, R02UU, SumML}} Da02UU$	
1273	r1273	R02UG dimerizes to Da02UG	$R02UG \xrightleftharpoons{\text{SumML, R02UG, SumML}} Da02UG$	
1274	r1274	R02UL dimerizes to Da02UL	$R02UL \xrightleftharpoons{\text{SumML, R02UL, SumML}} Da02UL$	
1275	r1275	R12UU dimerizes to Da12UU	$R12UU \xrightleftharpoons{\text{SumML, R12UU, SumML}} Da12UU$	
1276	r1276	R12CU dimerizes to Da12CU	$R12CU \xrightleftharpoons{\text{SumML, R12CU, SumML}} Da12CU$	
1277	r1277	R12LU dimerizes to Da12LU	$R12LU \xrightleftharpoons{\text{SumML, R12LU, SumML}} Da12LU$	
1278	r1278	R12UG dimerizes to Da12UG	$R12UG \xrightleftharpoons{\text{SumML, R12UG, SumML}} Da12UG$	
1279	r1279	R12UL dimerizes to Da12UL	$R12UL \xrightleftharpoons{\text{SumML, R12UL, SumML}} Da12UL$	
1280	r1280	R12CG dimerizes to Da12CG	$R12CG \xrightleftharpoons{\text{SumML, R12CG, SumML}} Da12CG$	
1281	r1281	R12CC dimerizes to Da12CC	$R12CC \xrightleftharpoons{\text{SumML, R12CC, SumML}} Da12CC$	
1282	r1282	R12LG dimerizes to Da12LG	$R12LG \xrightleftharpoons{\text{SumML, R12LG, SumML}} Da12LG$	
1283	r1283	RL00UU dimerizes to DiL00UU	$RL00UU \xrightleftharpoons{\text{SumM, RL00UU, SumM}} DiL00UU$	
1284	r1284	RL10UU dimerizes to DiL10UU	$RL10UU \xrightleftharpoons{\text{SumM, RL10UU, SumM}} DiL10UU$	
1285	r1285	RL10CU dimerizes to DiL10CU	$RL10CU \xrightleftharpoons{\text{SumM, RL10CU, SumM}} DiL10CU$	
1286	r1286	RL10LU dimerizes to DiL10LU	$RL10LU \xrightleftharpoons{\text{SumM, RL10LU, SumM}} DiL10LU$	

Nº	Id	Name	Reaction Equation	SBO
1287	r1287	RL01UU dimerizes to DiL01UU	$\text{RL01UU} \xrightleftharpoons{\text{SumM, RL01UU, SumM}} \text{DiL01UU}$	
1288	r1288	RL01UG dimerizes to DiL01UG	$\text{RL01UG} \xrightleftharpoons{\text{SumM, RL01UG, SumM}} \text{DiL01UG}$	
1289	r1289	RL01UL dimerizes to DiL01UL	$\text{RL01UL} \xrightleftharpoons{\text{SumM, RL01UL, SumM}} \text{DiL01UL}$	
1290	r1290	RL11UU dimerizes to DiL11UU	$\text{RL11UU} \xrightleftharpoons{\text{SumM, RL11UU, SumM}} \text{DiL11UU}$	
1291	r1291	RL11CU dimerizes to DiL11CU	$\text{RL11CU} \xrightleftharpoons{\text{SumM, RL11CU, SumM}} \text{DiL11CU}$	
1292	r1292	RL11LU dimerizes to DiL11LU	$\text{RL11LU} \xrightleftharpoons{\text{SumM, RL11LU, SumM}} \text{DiL11LU}$	
1293	r1293	RL11UG dimerizes to DiL11UG	$\text{RL11UG} \xrightleftharpoons{\text{SumM, RL11UG, SumM}} \text{DiL11UG}$	
1294	r1294	RL11UL dimerizes to DiL11UL	$\text{RL11UL} \xrightleftharpoons{\text{SumM, RL11UL, SumM}} \text{DiL11UL}$	
1295	r1295	RL11CG dimerizes to DiL11CG	$\text{RL11CG} \xrightleftharpoons{\text{SumM, RL11CG, SumM}} \text{DiL11CG}$	
1296	r1296	RL11CC dimerizes to DiL11CC	$\text{RL11CC} \xrightleftharpoons{\text{SumM, RL11CC, SumM}} \text{DiL11CC}$	
1297	r1297	RL11LG dimerizes to DiL11LG	$\text{RL11LG} \xrightleftharpoons{\text{SumM, RL11LG, SumM}} \text{DiL11LG}$	
1298	r1298	RL02UU dimerizes to DiL02UU	$\text{RL02UU} \xrightleftharpoons{\text{SumM, RL02UU, SumM}} \text{DiL02UU}$	
1299	r1299	RL02UG dimerizes to DiL02UG	$\text{RL02UG} \xrightleftharpoons{\text{SumM, RL02UG, SumM}} \text{DiL02UG}$	
1300	r1300	RL02UL dimerizes to DiL02UL	$\text{RL02UL} \xrightleftharpoons{\text{SumM, RL02UL, SumM}} \text{DiL02UL}$	
1301	r1301	RL12UU dimerizes to DiL12UU	$\text{RL12UU} \xrightleftharpoons{\text{SumM, RL12UU, SumM}} \text{DiL12UU}$	
1302	r1302	RL12CU dimerizes to DiL12CU	$\text{RL12CU} \xrightleftharpoons{\text{SumM, RL12CU, SumM}} \text{DiL12CU}$	
1303	r1303	RL12LU dimerizes to DiL12LU	$\text{RL12LU} \xrightleftharpoons{\text{SumM, RL12LU, SumM}} \text{DiL12LU}$	
1304	r1304	RL12UG dimerizes to DiL12UG	$\text{RL12UG} \xrightleftharpoons{\text{SumM, RL12UG, SumM}} \text{DiL12UG}$	
1305	r1305	RL12UL dimerizes to DiL12UL	$\text{RL12UL} \xrightleftharpoons{\text{SumM, RL12UL, SumM}} \text{DiL12UL}$	

Nº	Id	Name	Reaction Equation	SBO
1306	r1306	RL12CG dimerizes to DiL12CG	$\text{RL12CG} \xrightleftharpoons{\text{SumM, RL12CG, SumM}} \text{DiL12CG}$	
1307	r1307	RL12CC dimerizes to DiL12CC	$\text{RL12CC} \xrightleftharpoons{\text{SumM, RL12CC, SumM}} \text{DiL12CC}$	
1308	r1308	RL12LG dimerizes to DiL12LG	$\text{RL12LG} \xrightleftharpoons{\text{SumM, RL12LG, SumM}} \text{DiL12LG}$	
1309	r1309	RL00UU dimerizes to DaL00UU	$\text{RL00UU} \xrightleftharpoons{\text{SumML, RL00UU, SumML}} \text{DaL00UU}$	
1310	r1310	RL10UU dimerizes to DaL10UU	$\text{RL10UU} \xrightleftharpoons{\text{SumML, RL10UU, SumML}} \text{DaL10UU}$	
1311	r1311	RL10CU dimerizes to DaL10CU	$\text{RL10CU} \xrightleftharpoons{\text{SumML, RL10CU, SumML}} \text{DaL10CU}$	
1312	r1312	RL10LU dimerizes to DaL10LU	$\text{RL10LU} \xrightleftharpoons{\text{SumML, RL10LU, SumML}} \text{DaL10LU}$	
1313	r1313	RL01UU dimerizes to DaL01UU	$\text{RL01UU} \xrightleftharpoons{\text{SumML, RL01UU, SumML}} \text{DaL01UU}$	
1314	r1314	RL01UG dimerizes to DaL01UG	$\text{RL01UG} \xrightleftharpoons{\text{SumML, RL01UG, SumML}} \text{DaL01UG}$	
1315	r1315	RL01UL dimerizes to DaL01UL	$\text{RL01UL} \xrightleftharpoons{\text{SumML, RL01UL, SumML}} \text{DaL01UL}$	
1316	r1316	RL11UU dimerizes to DaL11UU	$\text{RL11UU} \xrightleftharpoons{\text{SumML, RL11UU, SumML}} \text{DaL11UU}$	
1317	r1317	RL11CU dimerizes to DaL11CU	$\text{RL11CU} \xrightleftharpoons{\text{SumML, RL11CU, SumML}} \text{DaL11CU}$	
1318	r1318	RL11LU dimerizes to DaL11LU	$\text{RL11LU} \xrightleftharpoons{\text{SumML, RL11LU, SumML}} \text{DaL11LU}$	
1319	r1319	RL11UG dimerizes to DaL11UG	$\text{RL11UG} \xrightleftharpoons{\text{SumML, RL11UG, SumML}} \text{DaL11UG}$	
1320	r1320	RL11UL dimerizes to DaL11UL	$\text{RL11UL} \xrightleftharpoons{\text{SumML, RL11UL, SumML}} \text{DaL11UL}$	
1321	r1321	RL11CG dimerizes to DaL11CG	$\text{RL11CG} \xrightleftharpoons{\text{SumML, RL11CG, SumML}} \text{DaL11CG}$	
1322	r1322	RL11CC dimerizes to DaL11CC	$\text{RL11CC} \xrightleftharpoons{\text{SumML, RL11CC, SumML}} \text{DaL11CC}$	
1323	r1323	RL11LG dimerizes to DaL11LG	$\text{RL11LG} \xrightleftharpoons{\text{SumML, RL11LG, SumML}} \text{DaL11LG}$	
1324	r1324	RL02UU dimerizes to DaL02UU	$\text{RL02UU} \xrightleftharpoons{\text{SumML, RL02UU, SumML}} \text{DaL02UU}$	

Nº	Id	Name	Reaction Equation	SBO
1325	r1325	RL02UG dimerizes to DaL02UG	$\text{RL02UG} \xrightleftharpoons{\text{SumML, RL02UG, SumML}} \text{DaL02UG}$	
1326	r1326	RL02UL dimerizes to DaL02UL	$\text{RL02UL} \xrightleftharpoons{\text{SumML, RL02UL, SumML}} \text{DaL02UL}$	
1327	r1327	RL12UU dimerizes to DaL12UU	$\text{RL12UU} \xrightleftharpoons{\text{SumML, RL12UU, SumML}} \text{DaL12UU}$	
1328	r1328	RL12CU dimerizes to DaL12CU	$\text{RL12CU} \xrightleftharpoons{\text{SumML, RL12CU, SumML}} \text{DaL12CU}$	
1329	r1329	RL12LU dimerizes to DaL12LU	$\text{RL12LU} \xrightleftharpoons{\text{SumML, RL12LU, SumML}} \text{DaL12LU}$	
1330	r1330	RL12UG dimerizes to DaL12UG	$\text{RL12UG} \xrightleftharpoons{\text{SumML, RL12UG, SumML}} \text{DaL12UG}$	
1331	r1331	RL12UL dimerizes to DaL12UL	$\text{RL12UL} \xrightleftharpoons{\text{SumML, RL12UL, SumML}} \text{DaL12UL}$	
1332	r1332	RL12CG dimerizes to DaL12CG	$\text{RL12CG} \xrightleftharpoons{\text{SumML, RL12CG, SumML}} \text{DaL12CG}$	
1333	r1333	RL12CC dimerizes to DaL12CC	$\text{RL12CC} \xrightleftharpoons{\text{SumML, RL12CC, SumML}} \text{DaL12CC}$	
1334	r1334	RL12LG dimerizes to DaL12LG	$\text{RL12LG} \xrightleftharpoons{\text{SumML, RL12LG, SumML}} \text{DaL12LG}$	
1335	r1335	Di00UU loses partner	$\text{Di00UU} \xrightleftharpoons{\text{Di00UU}} \text{R00UU}$	
1336	r1336	Di10UU loses partner	$\text{Di10UU} \xrightleftharpoons{\text{Di10UU}} \text{R10UU}$	
1337	r1337	Di10CU loses partner	$\text{Di10CU} \xrightleftharpoons{\text{Di10CU}} \text{R10CU}$	
1338	r1338	Di10LU loses partner	$\text{Di10LU} \xrightleftharpoons{\text{Di10LU}} \text{R10LU}$	
1339	r1339	Di01UU loses partner	$\text{Di01UU} \xrightleftharpoons{\text{Di01UU}} \text{R01UU}$	
1340	r1340	Di01UG loses partner	$\text{Di01UG} \xrightleftharpoons{\text{Di01UG}} \text{R01UG}$	
1341	r1341	Di01UL loses partner	$\text{Di01UL} \xrightleftharpoons{\text{Di01UL}} \text{R01UL}$	
1342	r1342	Di11UU loses partner	$\text{Di11UU} \xrightleftharpoons{\text{Di11UU}} \text{R11UU}$	
1343	r1343	Di11CU loses partner	$\text{Di11CU} \xrightleftharpoons{\text{Di11CU}} \text{R11CU}$	

Nº	Id	Name	Reaction Equation	SBO
1344	r1344	Di11LU loses partner	$\text{Di11LU} \xrightleftharpoons{\text{Di11LU}} \text{R11LU}$	
1345	r1345	Di11UG loses partner	$\text{Di11UG} \xrightleftharpoons{\text{Di11UG}} \text{R11UG}$	
1346	r1346	Di11UL loses partner	$\text{Di11UL} \xrightleftharpoons{\text{Di11UL}} \text{R11UL}$	
1347	r1347	Di11CG loses partner	$\text{Di11CG} \xrightleftharpoons{\text{Di11CG}} \text{R11CG}$	
1348	r1348	Di11CC loses partner	$\text{Di11CC} \xrightleftharpoons{\text{Di11CC}} \text{R11CC}$	
1349	r1349	Di11LG loses partner	$\text{Di11LG} \xrightleftharpoons{\text{Di11LG}} \text{R11LG}$	
1350	r1350	Di02UU loses partner	$\text{Di02UU} \xrightleftharpoons{\text{Di02UU}} \text{R02UU}$	
1351	r1351	Di02UG loses partner	$\text{Di02UG} \xrightleftharpoons{\text{Di02UG}} \text{R02UG}$	
1352	r1352	Di02UL loses partner	$\text{Di02UL} \xrightleftharpoons{\text{Di02UL}} \text{R02UL}$	
1353	r1353	Di12UU loses partner	$\text{Di12UU} \xrightleftharpoons{\text{Di12UU}} \text{R12UU}$	
1354	r1354	Di12CU loses partner	$\text{Di12CU} \xrightleftharpoons{\text{Di12CU}} \text{R12CU}$	
1355	r1355	Di12LU loses partner	$\text{Di12LU} \xrightleftharpoons{\text{Di12LU}} \text{R12LU}$	
1356	r1356	Di12UG loses partner	$\text{Di12UG} \xrightleftharpoons{\text{Di12UG}} \text{R12UG}$	
1357	r1357	Di12UL loses partner	$\text{Di12UL} \xrightleftharpoons{\text{Di12UL}} \text{R12UL}$	
1358	r1358	Di12CG loses partner	$\text{Di12CG} \xrightleftharpoons{\text{Di12CG}} \text{R12CG}$	
1359	r1359	Di12CC loses partner	$\text{Di12CC} \xrightleftharpoons{\text{Di12CC}} \text{R12CC}$	
1360	r1360	Di12LG loses partner	$\text{Di12LG} \xrightleftharpoons{\text{Di12LG}} \text{R12LG}$	
1361	r1361	DiL00UU loses partner	$\text{DiL00UU} \xrightleftharpoons{\text{DiL00UU}} \text{RL00UU}$	
1362	r1362	DiL10UU loses partner	$\text{DiL10UU} \xrightleftharpoons{\text{DiL10UU}} \text{RL10UU}$	
1363	r1363	DiL10CU loses partner	$\text{DiL10CU} \xrightleftharpoons{\text{DiL10CU}} \text{RL10CU}$	

Nº	Id	Name	Reaction Equation	SBO
1364	r1364	DiL10LU loses partner	$\text{DiL10LU} \xrightleftharpoons{\text{DiL10LU}} \text{RL10LU}$	
1365	r1365	DiL01UU loses partner	$\text{DiL01UU} \xrightleftharpoons{\text{DiL01UU}} \text{RL01UU}$	
1366	r1366	DiL01UG loses partner	$\text{DiL01UG} \xrightleftharpoons{\text{DiL01UG}} \text{RL01UG}$	
1367	r1367	DiL01UL loses partner	$\text{DiL01UL} \xrightleftharpoons{\text{DiL01UL}} \text{RL01UL}$	
1368	r1368	DiL11UU loses partner	$\text{DiL11UU} \xrightleftharpoons{\text{DiL11UU}} \text{RL11UU}$	
1369	r1369	DiL11CU loses partner	$\text{DiL11CU} \xrightleftharpoons{\text{DiL11CU}} \text{RL11CU}$	
1370	r1370	DiL11LU loses partner	$\text{DiL11LU} \xrightleftharpoons{\text{DiL11LU}} \text{RL11LU}$	
1371	r1371	DiL11UG loses partner	$\text{DiL11UG} \xrightleftharpoons{\text{DiL11UG}} \text{RL11UG}$	
1372	r1372	DiL11UL loses partner	$\text{DiL11UL} \xrightleftharpoons{\text{DiL11UL}} \text{RL11UL}$	
1373	r1373	DiL11CG loses partner	$\text{DiL11CG} \xrightleftharpoons{\text{DiL11CG}} \text{RL11CG}$	
1374	r1374	DiL11CC loses partner	$\text{DiL11CC} \xrightleftharpoons{\text{DiL11CC}} \text{RL11CC}$	
1375	r1375	DiL11LG loses partner	$\text{DiL11LG} \xrightleftharpoons{\text{DiL11LG}} \text{RL11LG}$	
1376	r1376	DiL02UU loses partner	$\text{DiL02UU} \xrightleftharpoons{\text{DiL02UU}} \text{RL02UU}$	
1377	r1377	DiL02UG loses partner	$\text{DiL02UG} \xrightleftharpoons{\text{DiL02UG}} \text{RL02UG}$	
1378	r1378	DiL02UL loses partner	$\text{DiL02UL} \xrightleftharpoons{\text{DiL02UL}} \text{RL02UL}$	
1379	r1379	DiL12UU loses partner	$\text{DiL12UU} \xrightleftharpoons{\text{DiL12UU}} \text{RL12UU}$	
1380	r1380	DiL12CU loses partner	$\text{DiL12CU} \xrightleftharpoons{\text{DiL12CU}} \text{RL12CU}$	
1381	r1381	DiL12LU loses partner	$\text{DiL12LU} \xrightleftharpoons{\text{DiL12LU}} \text{RL12LU}$	
1382	r1382	DiL12UG loses partner	$\text{DiL12UG} \xrightleftharpoons{\text{DiL12UG}} \text{RL12UG}$	
1383	r1383	DiL12UL loses partner	$\text{DiL12UL} \xrightleftharpoons{\text{DiL12UL}} \text{RL12UL}$	

Nº	Id	Name	Reaction Equation	SBO
1384	r1384	DiL12CG loses partner	$\text{DiL12CG} \xrightleftharpoons{\text{DiL12CG}} \text{RL12CG}$	
1385	r1385	DiL12CC loses partner	$\text{DiL12CC} \xrightleftharpoons{\text{DiL12CC}} \text{RL12CC}$	
1386	r1386	DiL12LG loses partner	$\text{DiL12LG} \xrightleftharpoons{\text{DiL12LG}} \text{RL12LG}$	
1387	r1387	Da00UU loses partner	$\text{Da00UU} \xrightleftharpoons{\text{Da00UU}} \text{R00UU}$	
1388	r1388	Da10UU loses partner	$\text{Da10UU} \xrightleftharpoons{\text{Da10UU}} \text{R10UU}$	
1389	r1389	Da10CU loses partner	$\text{Da10CU} \xrightleftharpoons{\text{Da10CU}} \text{R10CU}$	
1390	r1390	Da10LU loses partner	$\text{Da10LU} \xrightleftharpoons{\text{Da10LU}} \text{R10LU}$	
1391	r1391	Da01UU loses partner	$\text{Da01UU} \xrightleftharpoons{\text{Da01UU}} \text{R01UU}$	
1392	r1392	Da01UG loses partner	$\text{Da01UG} \xrightleftharpoons{\text{Da01UG}} \text{R01UG}$	
1393	r1393	Da01UL loses partner	$\text{Da01UL} \xrightleftharpoons{\text{Da01UL}} \text{R01UL}$	
1394	r1394	Da11UU loses partner	$\text{Da11UU} \xrightleftharpoons{\text{Da11UU}} \text{R11UU}$	
1395	r1395	Da11CU loses partner	$\text{Da11CU} \xrightleftharpoons{\text{Da11CU}} \text{R11CU}$	
1396	r1396	Da11LU loses partner	$\text{Da11LU} \xrightleftharpoons{\text{Da11LU}} \text{R11LU}$	
1397	r1397	Da11UG loses partner	$\text{Da11UG} \xrightleftharpoons{\text{Da11UG}} \text{R11UG}$	
1398	r1398	Da11UL loses partner	$\text{Da11UL} \xrightleftharpoons{\text{Da11UL}} \text{R11UL}$	
1399	r1399	Da11CG loses partner	$\text{Da11CG} \xrightleftharpoons{\text{Da11CG}} \text{R11CG}$	
1400	r1400	Da11CC loses partner	$\text{Da11CC} \xrightleftharpoons{\text{Da11CC}} \text{R11CC}$	
1401	r1401	Da11LG loses partner	$\text{Da11LG} \xrightleftharpoons{\text{Da11LG}} \text{R11LG}$	
1402	r1402	Da02UU loses partner	$\text{Da02UU} \xrightleftharpoons{\text{Da02UU}} \text{R02UU}$	
1403	r1403	Da02UG loses partner	$\text{Da02UG} \xrightleftharpoons{\text{Da02UG}} \text{R02UG}$	

Nº	Id	Name	Reaction Equation	SBO
1404	r1404	Da02UL loses partner	$\text{Da02UL} \xrightleftharpoons{\text{Da02UL}} \text{R02UL}$	
1405	r1405	Da12UU loses partner	$\text{Da12UU} \xrightleftharpoons{\text{Da12UU}} \text{R12UU}$	
1406	r1406	Da12CU loses partner	$\text{Da12CU} \xrightleftharpoons{\text{Da12CU}} \text{R12CU}$	
1407	r1407	Da12LU loses partner	$\text{Da12LU} \xrightleftharpoons{\text{Da12LU}} \text{R12LU}$	
1408	r1408	Da12UG loses partner	$\text{Da12UG} \xrightleftharpoons{\text{Da12UG}} \text{R12UG}$	
1409	r1409	Da12UL loses partner	$\text{Da12UL} \xrightleftharpoons{\text{Da12UL}} \text{R12UL}$	
1410	r1410	Da12CG loses partner	$\text{Da12CG} \xrightleftharpoons{\text{Da12CG}} \text{R12CG}$	
1411	r1411	Da12CC loses partner	$\text{Da12CC} \xrightleftharpoons{\text{Da12CC}} \text{R12CC}$	
1412	r1412	Da12LG loses partner	$\text{Da12LG} \xrightleftharpoons{\text{Da12LG}} \text{R12LG}$	
1413	r1413	DaL00UU loses partner	$\text{DaL00UU} \xrightleftharpoons{\text{DaL00UU}} \text{RL00UU}$	
1414	r1414	DaL10UU loses partner	$\text{DaL10UU} \xrightleftharpoons{\text{DaL10UU}} \text{RL10UU}$	
1415	r1415	DaL10CU loses partner	$\text{DaL10CU} \xrightleftharpoons{\text{DaL10CU}} \text{RL10CU}$	
1416	r1416	DaL10LU loses partner	$\text{DaL10LU} \xrightleftharpoons{\text{DaL10LU}} \text{RL10LU}$	
1417	r1417	DaL01UU loses partner	$\text{DaL01UU} \xrightleftharpoons{\text{DaL01UU}} \text{RL01UU}$	
1418	r1418	DaL01UG loses partner	$\text{DaL01UG} \xrightleftharpoons{\text{DaL01UG}} \text{RL01UG}$	
1419	r1419	DaL01UL loses partner	$\text{DaL01UL} \xrightleftharpoons{\text{DaL01UL}} \text{RL01UL}$	
1420	r1420	DaL11UU loses partner	$\text{DaL11UU} \xrightleftharpoons{\text{DaL11UU}} \text{RL11UU}$	
1421	r1421	DaL11CU loses partner	$\text{DaL11CU} \xrightleftharpoons{\text{DaL11CU}} \text{RL11CU}$	
1422	r1422	DaL11LU loses partner	$\text{DaL11LU} \xrightleftharpoons{\text{DaL11LU}} \text{RL11LU}$	
1423	r1423	DaL11UG loses partner	$\text{DaL11UG} \xrightleftharpoons{\text{DaL11UG}} \text{RL11UG}$	

Nº	Id	Name	Reaction Equation	SBO
1424	r1424	DaL11UL loses partner	$\text{DaL11UL} \xrightleftharpoons{\text{DaL11UL}} \text{RL11UL}$	
1425	r1425	DaL11CG loses partner	$\text{DaL11CG} \xrightleftharpoons{\text{DaL11CG}} \text{RL11CG}$	
1426	r1426	DaL11CC loses partner	$\text{DaL11CC} \xrightleftharpoons{\text{DaL11CC}} \text{RL11CC}$	
1427	r1427	DaL11LG loses partner	$\text{DaL11LG} \xrightleftharpoons{\text{DaL11LG}} \text{RL11LG}$	
1428	r1428	DaL02UU loses partner	$\text{DaL02UU} \xrightleftharpoons{\text{DaL02UU}} \text{RL02UU}$	
1429	r1429	DaL02UG loses partner	$\text{DaL02UG} \xrightleftharpoons{\text{DaL02UG}} \text{RL02UG}$	
1430	r1430	DaL02UL loses partner	$\text{DaL02UL} \xrightleftharpoons{\text{DaL02UL}} \text{RL02UL}$	
1431	r1431	DaL12UU loses partner	$\text{DaL12UU} \xrightleftharpoons{\text{DaL12UU}} \text{RL12UU}$	
1432	r1432	DaL12CU loses partner	$\text{DaL12CU} \xrightleftharpoons{\text{DaL12CU}} \text{RL12CU}$	
1433	r1433	DaL12LU loses partner	$\text{DaL12LU} \xrightleftharpoons{\text{DaL12LU}} \text{RL12LU}$	
1434	r1434	DaL12UG loses partner	$\text{DaL12UG} \xrightleftharpoons{\text{DaL12UG}} \text{RL12UG}$	
1435	r1435	DaL12UL loses partner	$\text{DaL12UL} \xrightleftharpoons{\text{DaL12UL}} \text{RL12UL}$	
1436	r1436	DaL12CG loses partner	$\text{DaL12CG} \xrightleftharpoons{\text{DaL12CG}} \text{RL12CG}$	
1437	r1437	DaL12CC loses partner	$\text{DaL12CC} \xrightleftharpoons{\text{DaL12CC}} \text{RL12CC}$	
1438	r1438	DaL12LG loses partner	$\text{DaL12LG} \xrightleftharpoons{\text{DaL12LG}} \text{RL12LG}$	
1439	r1439	R00UU extra homodimerizes to Di00UU	$\text{R00UU} \xrightleftharpoons{\text{R00UU}} \text{Di00UU}$	
1440	r1440	R10UU extra homodimerizes to Di10UU	$\text{R10UU} \xrightleftharpoons{\text{R10UU}} \text{Di10UU}$	
1441	r1441	R10CU extra homodimerizes to Di10CU	$\text{R10CU} \xrightleftharpoons{\text{R10CU}} \text{Di10CU}$	
1442	r1442	R10LU extra homodimerizes to Di10LU	$\text{R10LU} \xrightleftharpoons{\text{R10LU}} \text{Di10LU}$	
1443	r1443	R01UU extra homodimerizes to Di01UU	$\text{R01UU} \xrightleftharpoons{\text{R01UU}} \text{Di01UU}$	

Nº	Id	Name	Reaction Equation	SBO
1444	r1444	R01UG extra homodimerizes to Di01UG	$R01UG \xrightleftharpoons{R01UG} Di01UG$	
1445	r1445	R01UL extra homodimerizes to Di01UL	$R01UL \xrightleftharpoons{R01UL} Di01UL$	
1446	r1446	R11UU extra homodimerizes to Di11UU	$R11UU \xrightleftharpoons{R11UU} Di11UU$	
1447	r1447	R11CU extra homodimerizes to Di11CU	$R11CU \xrightleftharpoons{R11CU} Di11CU$	
1448	r1448	R11LU extra homodimerizes to Di11LU	$R11LU \xrightleftharpoons{R11LU} Di11LU$	
1449	r1449	R11UG extra homodimerizes to Di11UG	$R11UG \xrightleftharpoons{R11UG} Di11UG$	
1450	r1450	R11UL extra homodimerizes to Di11UL	$R11UL \xrightleftharpoons{R11UL} Di11UL$	
1451	r1451	R11CG extra homodimerizes to Di11CG	$R11CG \xrightleftharpoons{R11CG} Di11CG$	
1452	r1452	R11CC extra homodimerizes to Di11CC	$R11CC \xrightleftharpoons{R11CC} Di11CC$	
1453	r1453	R11LG extra homodimerizes to Di11LG	$R11LG \xrightleftharpoons{R11LG} Di11LG$	
1454	r1454	R02UU extra homodimerizes to Di02UU	$R02UU \xrightleftharpoons{R02UU} Di02UU$	
1455	r1455	R02UG extra homodimerizes to Di02UG	$R02UG \xrightleftharpoons{R02UG} Di02UG$	
1456	r1456	R02UL extra homodimerizes to Di02UL	$R02UL \xrightleftharpoons{R02UL} Di02UL$	
1457	r1457	R12UU extra homodimerizes to Di12UU	$R12UU \xrightleftharpoons{R12UU} Di12UU$	
1458	r1458	R12CU extra homodimerizes to Di12CU	$R12CU \xrightleftharpoons{R12CU} Di12CU$	
1459	r1459	R12LU extra homodimerizes to Di12LU	$R12LU \xrightleftharpoons{R12LU} Di12LU$	
1460	r1460	R12UG extra homodimerizes to Di12UG	$R12UG \xrightleftharpoons{R12UG} Di12UG$	
1461	r1461	R12UL extra homodimerizes to Di12UL	$R12UL \xrightleftharpoons{R12UL} Di12UL$	
1462	r1462	R12CG extra homodimerizes to Di12CG	$R12CG \xrightleftharpoons{R12CG} Di12CG$	
1463	r1463	R12CC extra homodimerizes to Di12CC	$R12CC \xrightleftharpoons{R12CC} Di12CC$	

Nº	Id	Name	Reaction Equation	SBO
1464	r1464	R12LG extra homodimerizes to Di12LG	$R12LG \xrightleftharpoons{R12LG} Di12LG$	
1465	r1465	RL00UU extra homodimerizes to DaL00UU	$RL00UU \xrightleftharpoons{RL00UU} DaL00UU$	
1466	r1466	RL10UU extra homodimerizes to DaL10UU	$RL10UU \xrightleftharpoons{RL10UU} DaL10UU$	
1467	r1467	RL10CU extra homodimerizes to DaL10CU	$RL10CU \xrightleftharpoons{RL10CU} DaL10CU$	
1468	r1468	RL10LU extra homodimerizes to DaL10LU	$RL10LU \xrightleftharpoons{RL10LU} DaL10LU$	
1469	r1469	RL01UU extra homodimerizes to DaL01UU	$RL01UU \xrightleftharpoons{RL01UU} DaL01UU$	
1470	r1470	RL01UG extra homodimerizes to DaL01UG	$RL01UG \xrightleftharpoons{RL01UG} DaL01UG$	
1471	r1471	RL01UL extra homodimerizes to DaL01UL	$RL01UL \xrightleftharpoons{RL01UL} DaL01UL$	
1472	r1472	RL11UU extra homodimerizes to DaL11UU	$RL11UU \xrightleftharpoons{RL11UU} DaL11UU$	
1473	r1473	RL11CU extra homodimerizes to DaL11CU	$RL11CU \xrightleftharpoons{RL11CU} DaL11CU$	
1474	r1474	RL11LU extra homodimerizes to DaL11LU	$RL11LU \xrightleftharpoons{RL11LU} DaL11LU$	
1475	r1475	RL11UG extra homodimerizes to DaL11UG	$RL11UG \xrightleftharpoons{RL11UG} DaL11UG$	
1476	r1476	RL11UL extra homodimerizes to DaL11UL	$RL11UL \xrightleftharpoons{RL11UL} DaL11UL$	
1477	r1477	RL11CG extra homodimerizes to DaL11CG	$RL11CG \xrightleftharpoons{RL11CG} DaL11CG$	
1478	r1478	RL11CC extra homodimerizes to DaL11CC	$RL11CC \xrightleftharpoons{RL11CC} DaL11CC$	
1479	r1479	RL11LG extra homodimerizes to DaL11LG	$RL11LG \xrightleftharpoons{RL11LG} DaL11LG$	
1480	r1480	RL02UU extra homodimerizes to DaL02UU	$RL02UU \xrightleftharpoons{RL02UU} DaL02UU$	
1481	r1481	RL02UG extra homodimerizes to DaL02UG	$RL02UG \xrightleftharpoons{RL02UG} DaL02UG$	
1482	r1482	RL02UL extra homodimerizes to DaL02UL	$RL02UL \xrightleftharpoons{RL02UL} DaL02UL$	
1483	r1483	RL12UU extra homodimerizes to DaL12UU	$RL12UU \xrightleftharpoons{RL12UU} DaL12UU$	

Nº	Id	Name	Reaction Equation	SBO
1484	r1484	RL12CU extra homodimerizes to DaL12CU	$\text{RL12CU} \xrightleftharpoons{\text{RL12CU}} \text{DaL12CU}$	
1485	r1485	RL12LU extra homodimerizes to DaL12LU	$\text{RL12LU} \xrightleftharpoons{\text{RL12LU}} \text{DaL12LU}$	
1486	r1486	RL12UG extra homodimerizes to DaL12UG	$\text{RL12UG} \xrightleftharpoons{\text{RL12UG}} \text{DaL12UG}$	
1487	r1487	RL12UL extra homodimerizes to DaL12UL	$\text{RL12UL} \xrightleftharpoons{\text{RL12UL}} \text{DaL12UL}$	
1488	r1488	RL12CG extra homodimerizes to DaL12CG	$\text{RL12CG} \xrightleftharpoons{\text{RL12CG}} \text{DaL12CG}$	
1489	r1489	RL12CC extra homodimerizes to DaL12CC	$\text{RL12CC} \xrightleftharpoons{\text{RL12CC}} \text{DaL12CC}$	
1490	r1490	RL12LG extra homodimerizes to DaL12LG	$\text{RL12LG} \xrightleftharpoons{\text{RL12LG}} \text{DaL12LG}$	

7.1 Reaction r_1

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 6: Properties of each reactant.

Id	Name	SBO
Rc10UU	Rc10UU	

Modifier

Table 7: Properties of each modifier.

Id	Name	SBO
Rc10UU	Rc10UU	

Product

Table 8: Properties of each product.

Id	Name	SBO
Rc00UU	Rc00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_1 = k_{\text{ptp}} \cdot [\text{Rc10UU}] \quad (27)$$

7.2 Reaction r_2

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 9: Properties of each reactant.

Id	Name	SBO
Rc01UU	Rc01UU	

Modifier

Table 10: Properties of each modifier.

Id	Name	SBO
Rc01UU	Rc01UU	

Product

Table 11: Properties of each product.

Id	Name	SBO
Rc00UU	Rc00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_2 = k_{\text{tp68}} \cdot [\text{Rc01UU}] \quad (29)$$

7.3 Reaction r3

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 12: Properties of each reactant.

Id	Name	SBO
Rc11UU	Rc11UU	

Modifier

Table 13: Properties of each modifier.

Id	Name	SBO
Rc11UU	Rc11UU	

Product

Table 14: Properties of each product.

Id	Name	SBO
Rc01UU	Rc01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_3 = k_{\text{ptp}} \cdot [\text{Rc11UU}] \quad (31)$$

7.4 Reaction r4

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 15: Properties of each reactant.

Id	Name	SBO
Rc11UU	Rc11UU	

Modifier

Table 16: Properties of each modifier.

Id	Name	SBO
Rc11UU	Rc11UU	

Product

Table 17: Properties of each product.

Id	Name	SBO
Rc10UU	Rc10UU	

Kinetic Law

Derived unit contains undeclared units

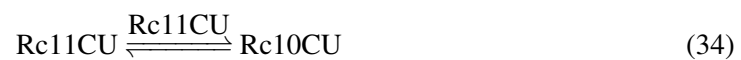
$$v_4 = k_{\text{ptp68}} \cdot [\text{Rc11UU}] \quad (33)$$

7.5 Reaction r5

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 18: Properties of each reactant.

Id	Name	SBO
Rc11CU	Rc11CU	

Modifier

Table 19: Properties of each modifier.

Id	Name	SBO
Rc11CU	Rc11CU	

Product

Table 20: Properties of each product.

Id	Name	SBO
Rc10CU	Rc10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_5 = k_{\text{ptp68}} \cdot [\text{Rc11CU}] \quad (35)$$

7.6 Reaction r6

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 21: Properties of each reactant.

Id	Name	SBO
Rc11LU	Rc11LU	

Modifier

Table 22: Properties of each modifier.

Id	Name	SBO
Rc11LU	Rc11LU	

Product

Table 23: Properties of each product.

Id	Name	SBO
Rc10LU	Rc10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_6 = k_{\text{tp68}} \cdot [\text{Rc11LU}] \quad (37)$$

7.7 Reaction r7

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 24: Properties of each reactant.

Id	Name	SBO
Rc11UG	Rc11UG	

Modifier

Table 25: Properties of each modifier.

Id	Name	SBO
Rc11UG	Rc11UG	

Product

Table 26: Properties of each product.

Id	Name	SBO
Rc01UG	Rc01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_7 = k_{\text{tp}} \cdot [\text{Rc11UG}] \quad (39)$$

7.8 Reaction r8

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 27: Properties of each reactant.

Id	Name	SBO
Rc11UL	Rc11UL	

Modifier

Table 28: Properties of each modifier.

Id	Name	SBO
Rc11UL	Rc11UL	

Product

Table 29: Properties of each product.

Id	Name	SBO
Rc01UL	Rc01UL	

Kinetic Law

Derived unit contains undeclared units

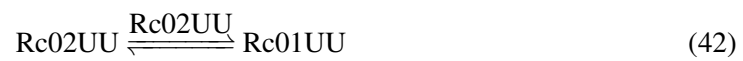
$$v_8 = k_{\text{ptp}} \cdot [\text{Rc11UL}] \quad (41)$$

7.9 Reaction r9

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 30: Properties of each reactant.

Id	Name	SBO
Rc02UU	Rc02UU	

Modifier

Table 31: Properties of each modifier.

Id	Name	SBO
Rc02UU	Rc02UU	

Product

Table 32: Properties of each product.

Id	Name	SBO
Rc01UU	Rc01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_9 = 2 \cdot k_{\text{ptp68}} \cdot [\text{Rc02UU}] \quad (43)$$

7.10 Reaction r_{10}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 33: Properties of each reactant.

Id	Name	SBO
Rc02UG	Rc02UG	

Modifier

Table 34: Properties of each modifier.

Id	Name	SBO
Rc02UG	Rc02UG	

Product

Table 35: Properties of each product.

Id	Name	SBO
Rc01UG	Rc01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{10} = k_{\text{tp68}} \cdot [\text{Rc02UG}] \quad (45)$$

7.11 Reaction r_{11}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 36: Properties of each reactant.

Id	Name	SBO
Rc02UL	Rc02UL	

Modifier

Table 37: Properties of each modifier.

Id	Name	SBO
Rc02UL	Rc02UL	

Product

Table 38: Properties of each product.

Id	Name	SBO
Rc01UL	Rc01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{11} = \text{ktp68} \cdot [\text{Rc02UL}] \quad (47)$$

7.12 Reaction r12

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 39: Properties of each reactant.

Id	Name	SBO
Rc12UU	Rc12UU	

Modifier

Table 40: Properties of each modifier.

Id	Name	SBO
Rc12UU	Rc12UU	

Product

Table 41: Properties of each product.

Id	Name	SBO
Rc02UU	Rc02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{12} = k_{tp} \cdot [\text{Rc12UU}] \quad (49)$$

7.13 Reaction r13

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 42: Properties of each reactant.

Id	Name	SBO
Rc12UU	Rc12UU	

Modifier

Table 43: Properties of each modifier.

Id	Name	SBO
Rc12UU	Rc12UU	

Product

Table 44: Properties of each product.

Id	Name	SBO
Rc11UU	Rc11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{13} = 2 \cdot k_{\text{tp68}} \cdot [\text{Rc12UU}] \quad (51)$$

7.14 Reaction r14

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 45: Properties of each reactant.

Id	Name	SBO
Rc12CU	Rc12CU	

Modifier

Table 46: Properties of each modifier.

Id	Name	SBO
Rc12CU	Rc12CU	

Product

Table 47: Properties of each product.

Id	Name	SBO
Rc11CU	Rc11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{14} = 2 \cdot k_{\text{ptp68}} \cdot [\text{Rc12CU}] \quad (53)$$

7.15 Reaction r15

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 48: Properties of each reactant.

Id	Name	SBO
Rc12LU	Rc12LU	

Modifier

Table 49: Properties of each modifier.

Id	Name	SBO
Rc12LU	Rc12LU	

Product

Table 50: Properties of each product.

Id	Name	SBO
Rc11LU	Rc11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{15} = 2 \cdot k_{\text{tp68}} \cdot [\text{Rc12LU}] \quad (55)$$

7.16 Reaction r16

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 51: Properties of each reactant.

Id	Name	SBO
Rc12UG	Rc12UG	

Modifier

Table 52: Properties of each modifier.

Id	Name	SBO
Rc12UG	Rc12UG	

Product

Table 53: Properties of each product.

Id	Name	SBO
Rc02UG	Rc02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{16} = k_{tp} \cdot [\text{Rc12UG}] \quad (57)$$

7.17 Reaction r17

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 54: Properties of each reactant.

Id	Name	SBO
Rc12UG	Rc12UG	

Modifier

Table 55: Properties of each modifier.

Id	Name	SBO
Rc12UG	Rc12UG	

Product

Table 56: Properties of each product.

Id	Name	SBO
Rc11UG	Rc11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{17} = k_{\text{tp}68} \cdot [\text{Rc12UG}] \quad (59)$$

7.18 Reaction r18

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 57: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	

Modifier

Table 58: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	

Product

Table 59: Properties of each product.

Id	Name	SBO
Rc02UL	Rc02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{18} = k_{\text{tp}} \cdot [\text{Rc12UL}] \quad (61)$$

7.19 Reaction r19

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 60: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	

Modifier

Table 61: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	

Product

Table 62: Properties of each product.

Id	Name	SBO
Rc11UL	Rc11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{19} = k_{\text{tp68}} \cdot [\text{Rc12UL}] \quad (63)$$

7.20 Reaction r20

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 63: Properties of each reactant.

Id	Name	SBO
Rc12CG	Rc12CG	

Modifier

Table 64: Properties of each modifier.

Id	Name	SBO
Rc12CG	Rc12CG	

Product

Table 65: Properties of each product.

Id	Name	SBO
Rc11CG	Rc11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{20} = k_{tp68} \cdot [\text{Rc12CG}]$$

(65)

7.21 Reaction r21

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 66: Properties of each reactant.

Id	Name	SBO
Rc12CC	Rc12CC	

Modifier

Table 67: Properties of each modifier.

Id	Name	SBO
Rc12CC	Rc12CC	

Product

Table 68: Properties of each product.

Id	Name	SBO
Rc11CC	Rc11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{21} = k_{\text{tp68}} \cdot [\text{Rc12CC}] \quad (67)$$

7.22 Reaction r22

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 69: Properties of each reactant.

Id	Name	SBO
Rc12LG	Rc12LG	

Modifier

Table 70: Properties of each modifier.

Id	Name	SBO
Rc12LG	Rc12LG	

Product

Table 71: Properties of each product.

Id	Name	SBO
Rc11LG	Rc11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{22} = k_{\text{tp68}} \cdot [\text{Rc12LG}] \quad (69)$$

7.23 Reaction r_{23}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 72: Properties of each reactant.

Id	Name	SBO
RcL10UU	RcL10UU	

Modifier

Table 73: Properties of each modifier.

Id	Name	SBO
RcL10UU	RcL10UU	

Product

Table 74: Properties of each product.

Id	Name	SBO
RcL00UU	RcL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{23} = k_{\text{ptp}} \cdot [\text{RcL10UU}] \quad (71)$$

7.24 Reaction r24

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 75: Properties of each reactant.

Id	Name	SBO
RcL01UU	RcL01UU	

Modifier

Table 76: Properties of each modifier.

Id	Name	SBO
RcL01UU	RcL01UU	

Product

Table 77: Properties of each product.

Id	Name	SBO
RcL00UU	RcL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{24} = k_{\text{tp68}} \cdot [\text{RcL01UU}] \quad (73)$$

7.25 Reaction r25

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 78: Properties of each reactant.

Id	Name	SBO
RcL11UU	RcL11UU	

Modifier

Table 79: Properties of each modifier.

Id	Name	SBO
RcL11UU	RcL11UU	

Product

Table 80: Properties of each product.

Id	Name	SBO
RcL01UU	RcL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{25} = k_{\text{ptp}} \cdot [\text{RcL11UU}] \tag{75}$$

7.26 Reaction r26

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 81: Properties of each reactant.

Id	Name	SBO
RcL11UU	RcL11UU	

Modifier

Table 82: Properties of each modifier.

Id	Name	SBO
RcL11UU	RcL11UU	

Product

Table 83: Properties of each product.

Id	Name	SBO
RcL10UU	RcL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{26} = k_{\text{tp68}} \cdot [\text{RcL11UU}] \quad (77)$$

7.27 Reaction r27

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 84: Properties of each reactant.

Id	Name	SBO
RcL11CU	RcL11CU	

Modifier

Table 85: Properties of each modifier.

Id	Name	SBO
RcL11CU	RcL11CU	

Product

Table 86: Properties of each product.

Id	Name	SBO
RcL10CU	RcL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{27} = k_{\text{tp68}} \cdot [\text{RcL11CU}] \quad (79)$$

7.28 Reaction r28

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 87: Properties of each reactant.

Id	Name	SBO
RcL11LU	RcL11LU	

Modifier

Table 88: Properties of each modifier.

Id	Name	SBO
RcL11LU	RcL11LU	

Product

Table 89: Properties of each product.

Id	Name	SBO
RcL10LU	RcL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{28} = k_{\text{tp68}} \cdot [\text{RcL11LU}] \quad (81)$$

7.29 Reaction r29

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 90: Properties of each reactant.

Id	Name	SBO
RcL11UG	RcL11UG	

Modifier

Table 91: Properties of each modifier.

Id	Name	SBO
RcL11UG	RcL11UG	

Product

Table 92: Properties of each product.

Id	Name	SBO
RcL01UG	RcL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{29} = k_{\text{tp}} \cdot [\text{RcL11UG}] \quad (83)$$

7.30 Reaction r30

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 93: Properties of each reactant.

Id	Name	SBO
RcL11UL	RcL11UL	

Modifier

Table 94: Properties of each modifier.

Id	Name	SBO
RcL11UL	RcL11UL	

Product

Table 95: Properties of each product.

Id	Name	SBO
RcL01UL	RcL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{30} = k_{tp} \cdot [\text{RcL11UL}] \quad (85)$$

7.31 Reaction r31

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 96: Properties of each reactant.

Id	Name	SBO
RcL02UU	RcL02UU	

Modifier

Table 97: Properties of each modifier.

Id	Name	SBO
RcL02UU	RcL02UU	

Product

Table 98: Properties of each product.

Id	Name	SBO
RcL01UU	RcL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{31} = 2 \cdot k_{\text{tp68}} \cdot [\text{RcL02UU}] \quad (87)$$

7.32 Reaction r32

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 99: Properties of each reactant.

Id	Name	SBO
RcL02UG	RcL02UG	

Modifier

Table 100: Properties of each modifier.

Id	Name	SBO
RcL02UG	RcL02UG	

Product

Table 101: Properties of each product.

Id	Name	SBO
RcL01UG	RcL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{32} = k_{\text{tp68}} \cdot [\text{RcL02UG}] \quad (89)$$

7.33 Reaction r33

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 102: Properties of each reactant.

Id	Name	SBO
RcL02UL	RcL02UL	

Modifier

Table 103: Properties of each modifier.

Id	Name	SBO
RcL02UL	RcL02UL	

Product

Table 104: Properties of each product.

Id	Name	SBO
RcL01UL	RcL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{33} = k_{\text{tp68}} \cdot [\text{RcL02UL}] \quad (91)$$

7.34 Reaction r34

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 105: Properties of each reactant.

Id	Name	SBO
RcL12UU	RcL12UU	

Modifier

Table 106: Properties of each modifier.

Id	Name	SBO
RcL12UU	RcL12UU	

Product

Table 107: Properties of each product.

Id	Name	SBO
RcL02UU	RcL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{34} = k_{\text{ptp}} \cdot [\text{RcL12UU}] \quad (93)$$

7.35 Reaction r35

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 108: Properties of each reactant.

Id	Name	SBO
RcL12UU	RcL12UU	

Modifier

Table 109: Properties of each modifier.

Id	Name	SBO
RcL12UU	RcL12UU	

Product

Table 110: Properties of each product.

Id	Name	SBO
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{35} = 2 \cdot k_{\text{ptp68}} \cdot [\text{RcL12UU}] \quad (95)$$

7.36 Reaction r36

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 111: Properties of each reactant.

Id	Name	SBO
RcL12CU	RcL12CU	

Modifier

Table 112: Properties of each modifier.

Id	Name	SBO
RcL12CU	RcL12CU	

Product

Table 113: Properties of each product.

Id	Name	SBO
RcL11CU	RcL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{36} = 2 \cdot k_{\text{ptp68}} \cdot [\text{RcL12CU}] \quad (97)$$

7.37 Reaction r37

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 114: Properties of each reactant.

Id	Name	SBO
RcL12LU	RcL12LU	

Modifier

Table 115: Properties of each modifier.

Id	Name	SBO
RcL12LU	RcL12LU	

Product

Table 116: Properties of each product.

Id	Name	SBO
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{37} = 2 \cdot k_{\text{tp68}} \cdot [\text{RcL12LU}] \quad (99)$$

7.38 Reaction r38

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 117: Properties of each reactant.

Id	Name	SBO
RcL12UG	RcL12UG	

Modifier

Table 118: Properties of each modifier.

Id	Name	SBO
RcL12UG	RcL12UG	

Product

Table 119: Properties of each product.

Id	Name	SBO
RcL02UG	RcL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{38} = k_{\text{ptp}} \cdot [\text{RcL12UG}] \quad (101)$$

7.39 Reaction r39

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 120: Properties of each reactant.

Id	Name	SBO
RcL12UG	RcL12UG	

Modifier

Table 121: Properties of each modifier.

Id	Name	SBO
RcL12UG	RcL12UG	

Product

Table 122: Properties of each product.

Id	Name	SBO
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{39} = k_{\text{tp68}} \cdot [\text{RcL12UG}] \quad (103)$$

7.40 Reaction r40

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 123: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 124: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Product

Table 125: Properties of each product.

Id	Name	SBO
RcL02UL	RcL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{40} = k_{\text{tp}} \cdot [\text{RcL12UL}] \quad (105)$$

7.41 Reaction [r41](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 126: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 127: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Product

Table 128: Properties of each product.

Id	Name	SBO
RcL11UL	RcL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{41} = k_{\text{tp68}} \cdot [\text{RcL12UL}] \quad (107)$$

7.42 Reaction r42

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 129: Properties of each reactant.

Id	Name	SBO
RcL12CG	RcL12CG	

Modifier

Table 130: Properties of each modifier.

Id	Name	SBO
RcL12CG	RcL12CG	

Product

Table 131: Properties of each product.

Id	Name	SBO
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{42} = k_{\text{tp68}} \cdot [\text{RcL12CG}] \quad (109)$$

7.43 Reaction r43

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 132: Properties of each reactant.

Id	Name	SBO
RcL12CC	RcL12CC	

Modifier

Table 133: Properties of each modifier.

Id	Name	SBO
RcL12CC	RcL12CC	

Product

Table 134: Properties of each product.

Id	Name	SBO
RcL11CC	RcL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{43} = k_{\text{ptp68}} \cdot [\text{RcL12CC}] \quad (111)$$

7.44 Reaction [r44](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 135: Properties of each reactant.

Id	Name	SBO
RcL12LG	RcL12LG	

Modifier

Table 136: Properties of each modifier.

Id	Name	SBO
RcL12LG	RcL12LG	

Product

Table 137: Properties of each product.

Id	Name	SBO
RcL11LG	RcL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{44} = k_{\text{tp68}} \cdot [\text{RcL12LG}] \quad (113)$$

7.45 Reaction r45

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 138: Properties of each reactant.

Id	Name	SBO
R10UU	R10UU	

Modifier

Table 139: Properties of each modifier.

Id	Name	SBO
R10UU	R10UU	

Product

Table 140: Properties of each product.

Id	Name	SBO
R00UU	R00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{45} = k_{\text{tp}} \cdot [\text{R10UU}] \quad (115)$$

7.46 Reaction r46

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 141: Properties of each reactant.

Id	Name	SBO
R01UU	R01UU	

Modifier

Table 142: Properties of each modifier.

Id	Name	SBO
R01UU	R01UU	

Product

Table 143: Properties of each product.

Id	Name	SBO
R00UU	R00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{46} = k_{\text{tp68}} \cdot [\text{R01UU}] \quad (117)$$

7.47 Reaction r47

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 144: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	

Modifier

Table 145: Properties of each modifier.

Id	Name	SBO
R11UU	R11UU	

Product

Table 146: Properties of each product.

Id	Name	SBO
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{47} = k_{\text{ptp}} \cdot [\text{R11UU}] \quad (119)$$

7.48 Reaction r48

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 147: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	

Modifier

Table 148: Properties of each modifier.

Id	Name	SBO
R11UU	R11UU	

Product

Table 149: Properties of each product.

Id	Name	SBO
R10UU	R10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{48} = k_{tp68} \cdot [R11UU] \quad (121)$$

7.49 Reaction r49

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 150: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	

Modifier

Table 151: Properties of each modifier.

Id	Name	SBO
R11CU	R11CU	

Product

Table 152: Properties of each product.

Id	Name	SBO
R10CU	R10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{49} = k_{tp68} \cdot [R11CU] \quad (123)$$

7.50 Reaction r50

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 153: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifier

Table 154: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	

Product

Table 155: Properties of each product.

Id	Name	SBO
R10LU	R10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{50} = k_{tp68} \cdot [R11LU] \quad (125)$$

7.51 Reaction r51

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 156: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	

Modifier

Table 157: Properties of each modifier.

Id	Name	SBO
R11UG	R11UG	

Product

Table 158: Properties of each product.

Id	Name	SBO
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{51} = k_{\text{tp}} \cdot [\text{R11UG}] \quad (127)$$

7.52 Reaction r52

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 159: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifier

Table 160: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	

Product

Table 161: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{52} = k_{\text{ptp}} \cdot [\text{R11UL}] \quad (129)$$

7.53 Reaction r53

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 162: Properties of each reactant.

Id	Name	SBO
R02UU	R02UU	

Modifier

Table 163: Properties of each modifier.

Id	Name	SBO
R02UU	R02UU	

Product

Table 164: Properties of each product.

Id	Name	SBO
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{53} = 2 \cdot k_{\text{tp68}} \cdot [\text{R02UU}] \quad (131)$$

7.54 Reaction r54

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 165: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	

Modifier

Table 166: Properties of each modifier.

Id	Name	SBO
R02UG	R02UG	

Product

Table 167: Properties of each product.

Id	Name	SBO
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{54} = k_{\text{tp68}} \cdot [\text{R02UG}] \quad (133)$$

7.55 Reaction r55

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 168: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifier

Table 169: Properties of each modifier.

Id	Name	SBO
R02UL	R02UL	

Product

Table 170: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{55} = k_{\text{ptp68}} \cdot [\text{R02UL}] \quad (135)$$

7.56 Reaction r56

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 171: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	

Modifier

Table 172: Properties of each modifier.

Id	Name	SBO
R12UU	R12UU	

Product

Table 173: Properties of each product.

Id	Name	SBO
R02UU	R02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{56} = k_{\text{ptp}} \cdot [\text{R12UU}]$$

(137)

7.57 Reaction r57

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 174: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	

Modifier

Table 175: Properties of each modifier.

Id	Name	SBO
R12UU	R12UU	

Product

Table 176: Properties of each product.

Id	Name	SBO
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{57} = 2 \cdot k_{\text{ptp68}} \cdot [\text{R12UU}] \quad (139)$$

7.58 Reaction r58

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 177: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	

Modifier

Table 178: Properties of each modifier.

Id	Name	SBO
R12CU	R12CU	

Product

Table 179: Properties of each product.

Id	Name	SBO
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{58} = 2 \cdot k_{\text{tp68}} \cdot [\text{R12CU}] \quad (141)$$

7.59 Reaction r59

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 180: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifier

Table 181: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	

Product

Table 182: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{59} = 2 \cdot k_{\text{pt}68} \cdot [\text{R12LU}] \quad (143)$$

7.60 Reaction r60

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 183: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifier

Table 184: Properties of each modifier.

Id	Name	SBO
R12UG	R12UG	

Product

Table 185: Properties of each product.

Id	Name	SBO
R02UG	R02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{60} = k_{\text{tp}} \cdot [\text{R12UG}] \quad (145)$$

7.61 Reaction r61

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 186: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifier

Table 187: Properties of each modifier.

Id	Name	SBO
R12UG	R12UG	

Product

Table 188: Properties of each product.

Id	Name	SBO
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{61} = k_{\text{ptp68}} \cdot [\text{R12UG}] \quad (147)$$

7.62 Reaction r62

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UL has site Y1045 dephosphorylated

Reaction equation**Reactant**

Table 189: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 190: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Product

Table 191: Properties of each product.

Id	Name	SBO
R02UL	R02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{62} = k_{\text{ptp}} \cdot [\text{R12UL}] \quad (149)$$

7.63 Reaction r63

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 192: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 193: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Product

Table 194: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{63} = k_{\text{tp68}} \cdot [\text{R12UL}] \quad (151)$$

7.64 Reaction r64

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 195: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifier

Table 196: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	

Product

Table 197: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{64} = k_{\text{tp68}} \cdot [\text{R12CG}] \quad (153)$$

7.65 Reaction r65

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 198: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifier

Table 199: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	

Product

Table 200: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{65} = k_{\text{tp68}} \cdot [\text{R12CC}] \quad (155)$$

7.66 Reaction r66

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 201: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifier

Table 202: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	

Product

Table 203: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{66} = k_{tp68} \cdot [R12LG] \quad (157)$$

7.67 Reaction r67

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 204: Properties of each reactant.

Id	Name	SBO
RL10UU	RL10UU	

Modifier

Table 205: Properties of each modifier.

Id	Name	SBO
RL10UU	RL10UU	

Product

Table 206: Properties of each product.

Id	Name	SBO
RL00UU	RL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{67} = k_{tp} \cdot [\text{RL10UU}] \quad (159)$$

7.68 Reaction r68

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 207: Properties of each reactant.

Id	Name	SBO
RL01UU	RL01UU	

Modifier

Table 208: Properties of each modifier.

Id	Name	SBO
RL01UU	RL01UU	

Product

Table 209: Properties of each product.

Id	Name	SBO
RL00UU	RL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{68} = k_{\text{tp68}} \cdot [\text{RL01UU}] \quad (161)$$

7.69 Reaction r69

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 210: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifier

Table 211: Properties of each modifier.

Id	Name	SBO
RL11UU	RL11UU	

Product

Table 212: Properties of each product.

Id	Name	SBO
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{69} = k_{tp} \cdot [\text{RL11UU}] \quad (163)$$

7.70 Reaction r70

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 213: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifier

Table 214: Properties of each modifier.

Id	Name	SBO
RL11UU	RL11UU	

Product

Table 215: Properties of each product.

Id	Name	SBO
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{70} = k_{\text{ptp68}} \cdot [\text{RL11UU}] \quad (165)$$

7.71 Reaction r71

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CU has site Y1068/Y1086 dephosphorylated

Reaction equation**Reactant**

Table 216: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifier

Table 217: Properties of each modifier.

Id	Name	SBO
RL11CU	RL11CU	

Product

Table 218: Properties of each product.

Id	Name	SBO
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{71} = k_{\text{tp68}} \cdot [\text{RL11CU}] \quad (167)$$

7.72 Reaction r_{72}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 219: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 220: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Product

Table 221: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{72} = k_{\text{tp68}} \cdot [\text{RL11LU}] \quad (169)$$

7.73 Reaction [r73](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 222: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifier

Table 223: Properties of each modifier.

Id	Name	SBO
RL11UG	RL11UG	

Product

Table 224: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{73} = k_{\text{tp}} \cdot [\text{RL11UG}] \quad (171)$$

7.74 Reaction [r74](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 225: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 226: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Product

Table 227: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{74} = k_{tp} \cdot [\text{RL11UL}]$$

(173)

7.75 Reaction r75

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 228: Properties of each reactant.

Id	Name	SBO
RL02UU	RL02UU	

Modifier

Table 229: Properties of each modifier.

Id	Name	SBO
RL02UU	RL02UU	

Product

Table 230: Properties of each product.

Id	Name	SBO
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{75} = 2 \cdot k_{\text{ptp68}} \cdot [\text{RL02UU}] \quad (175)$$

7.76 Reaction r_{76}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 231: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifier

Table 232: Properties of each modifier.

Id	Name	SBO
RL02UG	RL02UG	

Product

Table 233: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{76} = k_{\text{tp68}} \cdot [\text{RL02UG}] \quad (177)$$

7.77 Reaction r_{77}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 234: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifier

Table 235: Properties of each modifier.

Id	Name	SBO
RL02UL	RL02UL	

Product

Table 236: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{77} = k_{\text{ptp68}} \cdot [\text{RL02UL}] \quad (179)$$

7.78 Reaction r_{78}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 237: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifier

Table 238: Properties of each modifier.

Id	Name	SBO
RL12UU	RL12UU	

Product

Table 239: Properties of each product.

Id	Name	SBO
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{78} = k_{tp} \cdot [\text{RL12UU}] \quad (181)$$

7.79 Reaction r79

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 240: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifier

Table 241: Properties of each modifier.

Id	Name	SBO
RL12UU	RL12UU	

Product

Table 242: Properties of each product.

Id	Name	SBO
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{79} = 2 \cdot k_{\text{tp68}} \cdot [\text{RL12UU}] \quad (183)$$

7.80 Reaction r80

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CU has site Y1068/Y1086 dephosphorylated

Reaction equation**Reactant**

Table 243: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifier

Table 244: Properties of each modifier.

Id	Name	SBO
RL12CU	RL12CU	

Product

Table 245: Properties of each product.

Id	Name	SBO
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{80} = 2 \cdot k_{\text{tp68}} \cdot [\text{RL12CU}] \tag{185}$$

7.81 Reaction r81

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 246: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 247: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Product

Table 248: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{81} = 2 \cdot k_{\text{tp68}} \cdot [\text{RL12LU}] \tag{187}$$

7.82 Reaction r82

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 249: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifier

Table 250: Properties of each modifier.

Id	Name	SBO
RL12UG	RL12UG	

Product

Table 251: Properties of each product.

Id	Name	SBO
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{82} = k_{\text{tp}} \cdot [\text{RL12UG}] \quad (189)$$

7.83 Reaction r83

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 252: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifier

Table 253: Properties of each modifier.

Id	Name	SBO
RL12UG	RL12UG	

Product

Table 254: Properties of each product.

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{83} = k_{\text{tp68}} \cdot [\text{RL12UG}]$$

(191)

7.84 Reaction r84

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 255: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 256: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Product

Table 257: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{84} = k_{tp} \cdot [\text{RL12UL}] \quad (193)$$

7.85 Reaction r85

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 258: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 259: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Product

Table 260: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{85} = k_{tp68} \cdot [RL12UL]$$

(195)

7.86 Reaction r86

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 261: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 262: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Product

Table 263: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

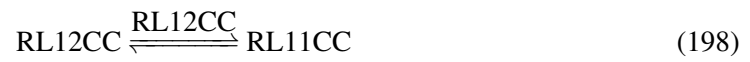
$$v_{86} = k_{\text{tp}68} \cdot [\text{RL12CG}] \quad (197)$$

7.87 Reaction r_{87}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 264: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 265: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Product

Table 266: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{87} = k_{tp68} \cdot [\text{RL12CC}] \quad (199)$$

7.88 Reaction r88

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 267: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 268: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Product

Table 269: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{88} = k_{\text{tp68}} \cdot [\text{RL12LG}] \quad (201)$$

7.89 Reaction r89

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 270: Properties of each reactant.

Id	Name	SBO
Di10UU	Di10UU	

Modifier

Table 271: Properties of each modifier.

Id	Name	SBO
Di10UU	Di10UU	

Product

Table 272: Properties of each product.

Id	Name	SBO
Di00UU	Di00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{89} = k_{tp} \cdot [\text{Di10UU}] \quad (203)$$

7.90 Reaction r90

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 273: Properties of each reactant.

Id	Name	SBO
Di01UU	Di01UU	

Modifier

Table 274: Properties of each modifier.

Id	Name	SBO
Di01UU	Di01UU	

Product

Table 275: Properties of each product.

Id	Name	SBO
Di00UU	Di00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{90} = k_{tp68} \cdot [\text{Di01UU}] \quad (205)$$

7.91 Reaction r91

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 276: Properties of each reactant.

Id	Name	SBO
Di11UU	Di11UU	

Modifier

Table 277: Properties of each modifier.

Id	Name	SBO
Di11UU	Di11UU	

Product

Table 278: Properties of each product.

Id	Name	SBO
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{91} = k_{tp} \cdot [\text{Di11UU}] \quad (207)$$

7.92 Reaction r92

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 279: Properties of each reactant.

Id	Name	SBO
Di11UU	Di11UU	

Modifier

Table 280: Properties of each modifier.

Id	Name	SBO
Di11UU	Di11UU	

Product

Table 281: Properties of each product.

Id	Name	SBO
Di10UU	Di10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{92} = k_{\text{tp68}} \cdot [\text{Di11UU}]$$

(209)

7.93 Reaction r93

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 282: Properties of each reactant.

Id	Name	SBO
Di11CU	Di11CU	

Modifier

Table 283: Properties of each modifier.

Id	Name	SBO
Di11CU	Di11CU	

Product

Table 284: Properties of each product.

Id	Name	SBO
Di10CU	Di10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{93} = k_{\text{ptp68}} \cdot [\text{Di11CU}] \quad (211)$$

7.94 Reaction r94

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 285: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	

Modifier

Table 286: Properties of each modifier.

Id	Name	SBO
Di11LU	Di11LU	

Product

Table 287: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{94} = k_{tp68} \cdot [\text{Di11LU}] \quad (213)$$

7.95 Reaction r_{95}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 288: Properties of each reactant.

Id	Name	SBO
Di11UG	Di11UG	

Modifier

Table 289: Properties of each modifier.

Id	Name	SBO
Di11UG	Di11UG	

Product

Table 290: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{95} = k_{\text{ptp}} \cdot [\text{Di11UG}] \quad (215)$$

7.96 Reaction r96

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 291: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	

Modifier

Table 292: Properties of each modifier.

Id	Name	SBO
Di11UL	Di11UL	

Product

Table 293: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{96} = k_{\text{ptp}} \cdot [\text{Di11UL}] \quad (217)$$

7.97 Reaction r97

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 294: Properties of each reactant.

Id	Name	SBO
Di02UU	Di02UU	

Modifier

Table 295: Properties of each modifier.

Id	Name	SBO
Di02UU	Di02UU	

Product

Table 296: Properties of each product.

Id	Name	SBO
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{97} = 2 \cdot k_{\text{tp68}} \cdot [\text{Di02UU}] \quad (219)$$

7.98 Reaction r98

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 297: Properties of each reactant.

Id	Name	SBO
Di02UG	Di02UG	

Modifier

Table 298: Properties of each modifier.

Id	Name	SBO
Di02UG	Di02UG	

Product

Table 299: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{98} = k_{\text{tp68}} \cdot [\text{Di02UG}] \quad (221)$$

7.99 Reaction r_{99}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 300: Properties of each reactant.

Id	Name	SBO
Di02UL	Di02UL	

Modifier

Table 301: Properties of each modifier.

Id	Name	SBO
Di02UL	Di02UL	

Product

Table 302: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{99} = k_{\text{tp68}} \cdot [\text{Di02UL}] \quad (223)$$

7.100 Reaction r100

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 303: Properties of each reactant.

Id	Name	SBO
Di12UU	Di12UU	

Modifier

Table 304: Properties of each modifier.

Id	Name	SBO
Di12UU	Di12UU	

Product

Table 305: Properties of each product.

Id	Name	SBO
Di02UU	Di02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{100} = k_{\text{tp}} \cdot [\text{Di12UU}]$$

(225)

7.101 Reaction r101

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 306: Properties of each reactant.

Id	Name	SBO
Di12UU	Di12UU	

Modifier

Table 307: Properties of each modifier.

Id	Name	SBO
Di12UU	Di12UU	

Product

Table 308: Properties of each product.

Id	Name	SBO
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{101} = 2 \cdot k_{\text{tp68}} \cdot [\text{Di12UU}]$$

(227)

7.102 Reaction r102

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 309: Properties of each reactant.

Id	Name	SBO
Di12CU	Di12CU	

Modifier

Table 310: Properties of each modifier.

Id	Name	SBO
Di12CU	Di12CU	

Product

Table 311: Properties of each product.

Id	Name	SBO
Di11CU	Di11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{102} = 2 \cdot k_{\text{ptp68}} \cdot [\text{Di12CU}] \quad (229)$$

7.103 Reaction r103

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 312: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	

Modifier

Table 313: Properties of each modifier.

Id	Name	SBO
Di12LU	Di12LU	

Product

Table 314: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{103} = 2 \cdot k_{\text{ptp68}} \cdot [\text{Di12LU}] \quad (231)$$

7.104 Reaction r104

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 315: Properties of each reactant.

Id	Name	SBO
Di12UG	Di12UG	

Modifier

Table 316: Properties of each modifier.

Id	Name	SBO
Di12UG	Di12UG	

Product

Table 317: Properties of each product.

Id	Name	SBO
Di02UG	Di02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{104} = k_{\text{tp}} \cdot [\text{Di12UG}] \quad (233)$$

7.105 Reaction r105

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 318: Properties of each reactant.

Id	Name	SBO
Di12UG	Di12UG	

Modifier

Table 319: Properties of each modifier.

Id	Name	SBO
Di12UG	Di12UG	

Product

Table 320: Properties of each product.

Id	Name	SBO
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{105} = k_{tp68} \cdot [\text{Di12UG}] \quad (235)$$

7.106 Reaction r106

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 321: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifier

Table 322: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	

Product

Table 323: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{106} = k_{\text{ptp}} \cdot [\text{Di12UL}] \quad (237)$$

7.107 Reaction r107

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 324: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifier

Table 325: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	

Product

Table 326: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{107} = k_{\text{tp68}} \cdot [\text{Di12UL}] \quad (239)$$

7.108 Reaction r_{108}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 327: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	

Modifier

Table 328: Properties of each modifier.

Id	Name	SBO
Di12CG	Di12CG	

Product

Table 329: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{108} = k_{\text{tp68}} \cdot [\text{Di12CG}] \quad (241)$$

7.109 Reaction r109

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 330: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	

Modifier

Table 331: Properties of each modifier.

Id	Name	SBO
Di12CC	Di12CC	

Product

Table 332: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{109} = k_{\text{tp68}} \cdot [\text{Di12CC}] \quad (243)$$

7.110 Reaction r110

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 333: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	

Modifier

Table 334: Properties of each modifier.

Id	Name	SBO
Di12LG	Di12LG	

Product

Table 335: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{110} = k_{\text{tp68}} \cdot [\text{Di12LG}] \quad (245)$$

7.111 Reaction r111

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 336: Properties of each reactant.

Id	Name	SBO
Da10UU	Da10UU	

Modifier

Table 337: Properties of each modifier.

Id	Name	SBO
Da10UU	Da10UU	

Product

Table 338: Properties of each product.

Id	Name	SBO
Da00UU	Da00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{111} = k_{tp} \cdot [\text{Da10UU}] \quad (247)$$

7.112 Reaction r112

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 339: Properties of each reactant.

Id	Name	SBO
Da01UU	Da01UU	

Modifier

Table 340: Properties of each modifier.

Id	Name	SBO
Da01UU	Da01UU	

Product

Table 341: Properties of each product.

Id	Name	SBO
Da00UU	Da00UU	

Kinetic Law

Derived unit contains undeclared units

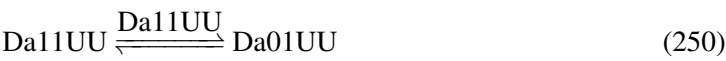
$$v_{112} = k_{\text{tp68}} \cdot [\text{Da01UU}] \tag{249}$$

7.113 Reaction r113

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 342: Properties of each reactant.

Id	Name	SBO
Da11UU	Da11UU	

Modifier

Table 343: Properties of each modifier.

Id	Name	SBO
Da11UU	Da11UU	

Product

Table 344: Properties of each product.

Id	Name	SBO
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{113} = k_{\text{ptp}} \cdot [\text{Da11UU}] \quad (251)$$

7.114 Reaction r114

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 345: Properties of each reactant.

Id	Name	SBO
Da11UU	Da11UU	

Modifier

Table 346: Properties of each modifier.

Id	Name	SBO
Da11UU	Da11UU	

Product

Table 347: Properties of each product.

Id	Name	SBO
Da10UU	Da10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{114} = k_{tp68} \cdot [\text{Da11UU}] \quad (253)$$

7.115 Reaction r115

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 348: Properties of each reactant.

Id	Name	SBO
Da11CU	Da11CU	

Modifier

Table 349: Properties of each modifier.

Id	Name	SBO
Da11CU	Da11CU	

Product

Table 350: Properties of each product.

Id	Name	SBO
Da10CU	Da10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{115} = k_{\text{ptp68}} \cdot [\text{Da11CU}] \quad (255)$$

7.116 Reaction r116

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LU has site Y1068/Y1086 dephosphorylated

Reaction equation**Reactant**

Table 351: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 352: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Product

Table 353: Properties of each product.

Id	Name	SBO
Da10LU	Da10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{116} = k_{\text{tp}68} \cdot [\text{Da11LU}] \quad (257)$$

7.117 Reaction r_{117}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 354: Properties of each reactant.

Id	Name	SBO
Da11UG	Da11UG	

Modifier

Table 355: Properties of each modifier.

Id	Name	SBO
Da11UG	Da11UG	

Product

Table 356: Properties of each product.

Id	Name	SBO
Da01UG	Da01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{117} = k_{\text{tp}} \cdot [\text{Da11UG}] \quad (259)$$

7.118 Reaction r118

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 357: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 358: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Product

Table 359: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{118} = k_{\text{ptp}} \cdot [\text{Da11UL}] \quad (261)$$

7.119 Reaction r119

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 360: Properties of each reactant.

Id	Name	SBO
Da02UU	Da02UU	

Modifier

Table 361: Properties of each modifier.

Id	Name	SBO
Da02UU	Da02UU	

Product

Table 362: Properties of each product.

Id	Name	SBO
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

$v_{119} = 2 \cdot k_{\text{ptp68}} \cdot [\text{Da02UU}]$

(263)

7.120 Reaction r120

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 363: Properties of each reactant.

Id	Name	SBO
Da02UG	Da02UG	

Modifier

Table 364: Properties of each modifier.

Id	Name	SBO
Da02UG	Da02UG	

Product

Table 365: Properties of each product.

Id	Name	SBO
Da01UG	Da01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{120} = k_{\text{tp68}} \cdot [\text{Da02UG}] \quad (265)$$

7.121 Reaction r121

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 366: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	

Modifier

Table 367: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	

Product

Table 368: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{121} = k_{tp68} \cdot [Da02UL] \tag{267}$$

7.122 Reaction r122

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 369: Properties of each reactant.

Id	Name	SBO
Da12UU	Da12UU	

Modifier

Table 370: Properties of each modifier.

Id	Name	SBO
Da12UU	Da12UU	

Product

Table 371: Properties of each product.

Id	Name	SBO
Da02UU	Da02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{122} = k_{\text{tp}} \cdot [\text{Da12UU}] \quad (269)$$

7.123 Reaction r123

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 372: Properties of each reactant.

Id	Name	SBO
Da12UU	Da12UU	

Modifier

Table 373: Properties of each modifier.

Id	Name	SBO
Da12UU	Da12UU	

Product

Table 374: Properties of each product.

Id	Name	SBO
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{123} = 2 \cdot k_{\text{tp68}} \cdot [\text{Da12UU}] \quad (271)$$

7.124 Reaction r124

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 375: Properties of each reactant.

Id	Name	SBO
Da12CU	Da12CU	

Modifier

Table 376: Properties of each modifier.

Id	Name	SBO
Da12CU	Da12CU	

Product

Table 377: Properties of each product.

Id	Name	SBO
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{124} = 2 \cdot k_{\text{ptp68}} \cdot [\text{Da12CU}] \quad (273)$$

7.125 Reaction r125

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 378: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	

Modifier

Table 379: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	

Product

Table 380: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{125} = 2 \cdot k_{\text{tp}68} \cdot [\text{Da12LU}] \quad (275)$$

7.126 Reaction r126

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 381: Properties of each reactant.

Id	Name	SBO
Da12UG	Da12UG	

Modifier

Table 382: Properties of each modifier.

Id	Name	SBO
Da12UG	Da12UG	

Product

Table 383: Properties of each product.

Id	Name	SBO
Da02UG	Da02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{126} = k_{\text{tp}} \cdot [\text{Da12UG}] \quad (277)$$

7.127 Reaction r127

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 384: Properties of each reactant.

Id	Name	SBO
Da12UG	Da12UG	

Modifier

Table 385: Properties of each modifier.

Id	Name	SBO
Da12UG	Da12UG	

Product

Table 386: Properties of each product.

Id	Name	SBO
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{127} = k_{\text{tp68}} \cdot [\text{Da12UG}] \quad (279)$$

7.128 Reaction r128

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 387: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 388: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Product

Table 389: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	

Kinetic Law

Derived unit contains undeclared units

$v_{128} = k_{\text{tp}} \cdot [\text{Da12UL}]$

(281)

7.129 Reaction r129

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 390: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 391: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Product

Table 392: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{129} = k_{tp68} \cdot [\text{Da12UL}] \quad (283)$$

7.130 Reaction r130

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 393: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	

Modifier

Table 394: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	

Product

Table 395: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

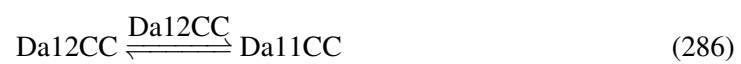
$$v_{130} = k_{\text{tp68}} \cdot [\text{Da12CG}] \quad (285)$$

7.131 Reaction `r131`

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 396: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	

Modifier

Table 397: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	

Product

Table 398: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{131} = k_{tp68} \cdot [\text{Da12CC}] \quad (287)$$

7.132 Reaction r132

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 399: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	

Modifier

Table 400: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	

Product

Table 401: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{132} = k_{tp68} \cdot [\text{Da12LG}] \quad (289)$$

7.133 Reaction r133

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 402: Properties of each reactant.

Id	Name	SBO
DiL10UU	DiL10UU	

Modifier

Table 403: Properties of each modifier.

Id	Name	SBO
DiL10UU	DiL10UU	

Product

Table 404: Properties of each product.

Id	Name	SBO
DiL00UU	DiL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{133} = k_{\text{tp}} \cdot [\text{DiL10UU}] \quad (291)$$

7.134 Reaction r134

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL01UU has site Y1068/Y1086 dephosphorylated

Reaction equation**Reactant**

Table 405: Properties of each reactant.

Id	Name	SBO
DiL01UU	DiL01UU	

Modifier

Table 406: Properties of each modifier.

Id	Name	SBO
DiL01UU	DiL01UU	

Product

Table 407: Properties of each product.

Id	Name	SBO
DiL00UU	DiL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{134} = k_{tp68} \cdot [\text{DiL01UU}] \quad (293)$$

7.135 Reaction r135

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 408: Properties of each reactant.

Id	Name	SBO
DiL11UU	DiL11UU	

Modifier

Table 409: Properties of each modifier.

Id	Name	SBO
DiL11UU	DiL11UU	

Product

Table 410: Properties of each product.

Id	Name	SBO
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{135} = k_{tp} \cdot [\text{DiL11UU}] \quad (295)$$

7.136 Reaction r136

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 411: Properties of each reactant.

Id	Name	SBO
DiL11UU	DiL11UU	

Modifier

Table 412: Properties of each modifier.

Id	Name	SBO
DiL11UU	DiL11UU	

Product

Table 413: Properties of each product.

Id	Name	SBO
DiL10UU	DiL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{136} = k_{\text{tp68}} \cdot [\text{DiL11UU}] \quad (297)$$

7.137 Reaction r137

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 414: Properties of each reactant.

Id	Name	SBO
DiL11CU	DiL11CU	

Modifier

Table 415: Properties of each modifier.

Id	Name	SBO
DiL11CU	DiL11CU	

Product

Table 416: Properties of each product.

Id	Name	SBO
DiL10CU	DiL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{137} = k_{\text{tp68}} \cdot [\text{DiL11CU}]$$

(299)

7.138 Reaction r138

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 417: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifier

Table 418: Properties of each modifier.

Id	Name	SBO
DiL11LU	DiL11LU	

Product

Table 419: Properties of each product.

Id	Name	SBO
DiL10LU	DiL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{138} = k_{\text{tp68}} \cdot [\text{DiL11LU}] \quad (301)$$

7.139 Reaction r139

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 420: Properties of each reactant.

Id	Name	SBO
DiL11UG	DiL11UG	

Modifier

Table 421: Properties of each modifier.

Id	Name	SBO
DiL11UG	DiL11UG	

Product

Table 422: Properties of each product.

Id	Name	SBO
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{139} = k_{\text{ptp}} \cdot [\text{DiL11UG}] \quad (303)$$

7.140 Reaction r140

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 423: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifier

Table 424: Properties of each modifier.

Id	Name	SBO
DiL11UL	DiL11UL	

Product

Table 425: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{140} = k_{\text{tp}} \cdot [\text{DiL11UL}] \quad (305)$$

7.141 Reaction r141

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 426: Properties of each reactant.

Id	Name	SBO
DiL02UU	DiL02UU	

Modifier

Table 427: Properties of each modifier.

Id	Name	SBO
DiL02UU	DiL02UU	

Product

Table 428: Properties of each product.

Id	Name	SBO
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{141} = 2 \cdot k_{\text{tp68}} \cdot [\text{DiL02UU}] \quad (307)$$

7.142 Reaction r142

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 429: Properties of each reactant.

Id	Name	SBO
DiL02UG	DiL02UG	

Modifier

Table 430: Properties of each modifier.

Id	Name	SBO
DiL02UG	DiL02UG	

Product

Table 431: Properties of each product.

Id	Name	SBO
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{142} = k_{\text{tp68}} \cdot [\text{DiL02UG}] \quad (309)$$

7.143 Reaction r143

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 432: Properties of each reactant.

Id	Name	SBO
DiL02UL	DiL02UL	

Modifier

Table 433: Properties of each modifier.

Id	Name	SBO
DiL02UL	DiL02UL	

Product

Table 434: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{143} = k_{tp68} \cdot [\text{DiL02UU}] \quad (311)$$

7.144 Reaction r144

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 435: Properties of each reactant.

Id	Name	SBO
DiL12UU	DiL12UU	

Modifier

Table 436: Properties of each modifier.

Id	Name	SBO
DiL12UU	DiL12UU	

Product

Table 437: Properties of each product.

Id	Name	SBO
DiL02UU	DiL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{144} = k_{tp} \cdot [\text{DiL12UU}] \quad (313)$$

7.145 Reaction r145

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 438: Properties of each reactant.

Id	Name	SBO
DiL12UU	DiL12UU	

Modifier

Table 439: Properties of each modifier.

Id	Name	SBO
DiL12UU	DiL12UU	

Product

Table 440: Properties of each product.

Id	Name	SBO
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{145} = 2 \cdot k_{\text{tp68}} \cdot [\text{DiL12UU}] \quad (315)$$

7.146 Reaction r146

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 441: Properties of each reactant.

Id	Name	SBO
DiL12CU	DiL12CU	

Modifier

Table 442: Properties of each modifier.

Id	Name	SBO
DiL12CU	DiL12CU	

Product

Table 443: Properties of each product.

Id	Name	SBO
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{146} = 2 \cdot k_{\text{tp68}} \cdot [\text{DiL12CU}]$$

(317)

7.147 Reaction r147

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 444: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifier

Table 445: Properties of each modifier.

Id	Name	SBO
DiL12LU	DiL12LU	

Product

Table 446: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{147} = 2 \cdot k_{\text{ptp68}} \cdot [\text{DiL12LU}] \quad (319)$$

7.148 Reaction r148

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 447: Properties of each reactant.

Id	Name	SBO
DiL12UG	DiL12UG	

Modifier

Table 448: Properties of each modifier.

Id	Name	SBO
DiL12UG	DiL12UG	

Product

Table 449: Properties of each product.

Id	Name	SBO
DiL02UG	DiL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{148} = k_{tp} \cdot [\text{DiL12UG}] \quad (321)$$

7.149 Reaction r149

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 450: Properties of each reactant.

Id	Name	SBO
DiL12UG	DiL12UG	

Modifier

Table 451: Properties of each modifier.

Id	Name	SBO
DiL12UG	DiL12UG	

Product

Table 452: Properties of each product.

Id	Name	SBO
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{149} = k_{\text{ptp68}} \cdot [\text{DiL12UG}] \quad (323)$$

7.150 Reaction r150

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 453: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 454: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Product

Table 455: Properties of each product.

Id	Name	SBO
DiL02UL	DiL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{150} = k_{tp} \cdot [\text{DiL12UL}] \quad (325)$$

7.151 Reaction r151

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 456: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 457: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Product

Table 458: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{151} = k_{\text{tp68}} \cdot [\text{DiL12UL}] \quad (327)$$

7.152 Reaction r152

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation**Reactant**

Table 459: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifier

Table 460: Properties of each modifier.

Id	Name	SBO
DiL12CG	DiL12CG	

Product

Table 461: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{152} = k_{tp68} \cdot [\text{DiL12CG}] \tag{329}$$

7.153 Reaction r153

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 462: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifier

Table 463: Properties of each modifier.

Id	Name	SBO
DiL12CC	DiL12CC	

Product

Table 464: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{153} = k_{tp68} \cdot [\text{DiL12CC}] \tag{331}$$

7.154 Reaction r154

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 465: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifier

Table 466: Properties of each modifier.

Id	Name	SBO
DiL12LG	DiL12LG	

Product

Table 467: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{154} = k_{\text{tp68}} \cdot [\text{DiL12LG}] \quad (333)$$

7.155 Reaction r155

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 468: Properties of each reactant.

Id	Name	SBO
DaL10UU	DaL10UU	

Modifier

Table 469: Properties of each modifier.

Id	Name	SBO
DaL10UU	DaL10UU	

Product

Table 470: Properties of each product.

Id	Name	SBO
DaL00UU	DaL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{155} = k_{tp} \cdot [\text{DaL10UU}]$$

(335)

7.156 Reaction r156

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 471: Properties of each reactant.

Id	Name	SBO
DaL01UU	DaL01UU	

Modifier

Table 472: Properties of each modifier.

Id	Name	SBO
DaL01UU	DaL01UU	

Product

Table 473: Properties of each product.

Id	Name	SBO
DaL00UU	DaL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{156} = k_{\text{tp68}} \cdot [\text{DaL01UU}] \quad (337)$$

7.157 Reaction r157

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 474: Properties of each reactant.

Id	Name	SBO
DaL11UU	DaL11UU	

Modifier

Table 475: Properties of each modifier.

Id	Name	SBO
DaL11UU	DaL11UU	

Product

Table 476: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{157} = k_{tp} \cdot [\text{DaL11UU}] \quad (339)$$

7.158 Reaction r158

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 477: Properties of each reactant.

Id	Name	SBO
DaL11UU	DaL11UU	

Modifier

Table 478: Properties of each modifier.

Id	Name	SBO
DaL11UU	DaL11UU	

Product

Table 479: Properties of each product.

Id	Name	SBO
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{158} = k_{\text{ptp68}} \cdot [\text{DaL11UU}] \quad (341)$$

7.159 Reaction r159

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 480: Properties of each reactant.

Id	Name	SBO
DaL11CU	DaL11CU	

Modifier

Table 481: Properties of each modifier.

Id	Name	SBO
DaL11CU	DaL11CU	

Product

Table 482: Properties of each product.

Id	Name	SBO
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{159} = k_{\text{tp68}} \cdot [\text{DaL11CU}] \quad (343)$$

7.160 Reaction r160

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 483: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 484: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Product

Table 485: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{160} = k_{\text{ptp68}} \cdot [\text{DaL11LU}] \quad (345)$$

7.161 Reaction r161

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 486: Properties of each reactant.

Id	Name	SBO
DaL11UG	DaL11UG	

Modifier

Table 487: Properties of each modifier.

Id	Name	SBO
DaL11UG	DaL11UG	

Product

Table 488: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{161} = k_{\text{ptp}} \cdot [\text{DaL11UG}] \tag{347}$$

7.162 Reaction r162

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 489: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 490: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Product

Table 491: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{162} = k_{\text{ptp}} \cdot [\text{DaL11UL}] \tag{349}$$

7.163 Reaction r163

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 492: Properties of each reactant.

Id	Name	SBO
DaL02UU	DaL02UU	

Modifier

Table 493: Properties of each modifier.

Id	Name	SBO
DaL02UU	DaL02UU	

Product

Table 494: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{163} = 2 \cdot k_{\text{tp68}} \cdot [\text{DaL02UU}] \quad (351)$$

7.164 Reaction r164

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 495: Properties of each reactant.

Id	Name	SBO
DaL02UG	DaL02UG	

Modifier

Table 496: Properties of each modifier.

Id	Name	SBO
DaL02UG	DaL02UG	

Product

Table 497: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$v_{164} = k_{\text{ptp68}} \cdot [\text{DaL02UG}]$

(353)

7.165 Reaction r165

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 498: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 499: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Product

Table 500: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{165} = k_{\text{tp68}} \cdot [\text{DaL02UL}] \quad (355)$$

7.166 Reaction r166

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UU has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 501: Properties of each reactant.

Id	Name	SBO
DaL12UU	DaL12UU	

Modifier

Table 502: Properties of each modifier.

Id	Name	SBO
DaL12UU	DaL12UU	

Product

Table 503: Properties of each product.

Id	Name	SBO
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{166} = k_{tp} \cdot [\text{DaL12UU}] \quad (357)$$

7.167 Reaction r_{167}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 504: Properties of each reactant.

Id	Name	SBO
DaL12UU	DaL12UU	

Modifier

Table 505: Properties of each modifier.

Id	Name	SBO
DaL12UU	DaL12UU	

Product

Table 506: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{167} = 2 \cdot k_{\text{ptp68}} \cdot [\text{DaL12UU}] \quad (359)$$

7.168 Reaction r168

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 507: Properties of each reactant.

Id	Name	SBO
DaL12CU	DaL12CU	

Modifier

Table 508: Properties of each modifier.

Id	Name	SBO
DaL12CU	DaL12CU	

Product

Table 509: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{168} = 2 \cdot k_{\text{tp68}} \cdot [\text{DaL12CU}] \quad (361)$$

7.169 Reaction r169

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LU has site Y1068/Y1086 dephosphorylated

Reaction equation



Reactant

Table 510: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 511: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Product

Table 512: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{169} = 2 \cdot k_{\text{tp68}} \cdot [\text{DaL12LU}] \quad (363)$$

7.170 Reaction r170

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UG has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 513: Properties of each reactant.

Id	Name	SBO
DaL12UG	DaL12UG	

Modifier

Table 514: Properties of each modifier.

Id	Name	SBO
DaL12UG	DaL12UG	

Product

Table 515: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{170} = k_{\text{ptp}} \cdot [\text{DaL12UG}] \quad (365)$$

7.171 Reaction r171

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 516: Properties of each reactant.

Id	Name	SBO
DaL12UG	DaL12UG	

Modifier

Table 517: Properties of each modifier.

Id	Name	SBO
DaL12UG	DaL12UG	

Product

Table 518: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{171} = k_{\text{tp68}} \cdot [\text{DaL12UG}] \quad (367)$$

7.172 Reaction r172

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UL has site Y1045 dephosphorylated

Reaction equation



Reactant

Table 519: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 520: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Product

Table 521: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{172} = k_{\text{tp}} \cdot [\text{DaL12UL}] \quad (369)$$

7.173 Reaction r173

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UL has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 522: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 523: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Product

Table 524: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

$v_{173} = k_{tp68} \cdot [\text{DaL12UL}]$

(371)

7.174 Reaction r174

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 525: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 526: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Product

Table 527: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{174} = k_{\text{tp68}} \cdot [\text{DaL12CG}] \quad (373)$$

7.175 Reaction r175

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CC has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 528: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 529: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Product

Table 530: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{175} = k_{\text{ptp68}} \cdot [\text{DaL12CC}] \quad (375)$$

7.176 Reaction r_{176}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LG has site Y1068/Y1-86 dephosphorylated

Reaction equation



Reactant

Table 531: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 532: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Product

Table 533: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{176} = k_{\text{ptp68}} \cdot [\text{DaL12LG}] \quad (377)$$

7.177 Reaction r177

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da00UU has site Y1045 phosphorylated

Reaction equation



Reactant

Table 534: Properties of each reactant.

Id	Name	SBO
Da00UU	Da00UU	

Modifier

Table 535: Properties of each modifier.

Id	Name	SBO
Da00UU	Da00UU	

Product

Table 536: Properties of each product.

Id	Name	SBO
Da10UU	Da10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{177} = k_{\text{kin}} \cdot [\text{Da00UU}] \quad (379)$$

7.178 Reaction r178

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da00UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 537: Properties of each reactant.

Id	Name	SBO
Da00UU	Da00UU	

Modifier

Table 538: Properties of each modifier.

Id	Name	SBO
Da00UU	Da00UU	

Product

Table 539: Properties of each product.

Id	Name	SBO
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{178} = 2 \cdot k_{kin68} \cdot [Da00UU] \quad (381)$$

7.179 Reaction r179

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 540: Properties of each reactant.

Id	Name	SBO
Da10UU	Da10UU	

Modifier

Table 541: Properties of each modifier.

Id	Name	SBO
Da10UU	Da10UU	

Product

Table 542: Properties of each product.

Id	Name	SBO
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{179} = 2 \cdot k_{kin68} \cdot [Da10UU] \quad (383)$$

7.180 Reaction r180

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10CU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 543: Properties of each reactant.

Id	Name	SBO
Da10CU	Da10CU	

Modifier

Table 544: Properties of each modifier.

Id	Name	SBO
Da10CU	Da10CU	

Product

Table 545: Properties of each product.

Id	Name	SBO
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{180} = 2 \cdot k_{kin68} \cdot [Da10CU] \quad (385)$$

7.181 Reaction r181

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10LU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 546: Properties of each reactant.

Id	Name	SBO
Da10LU	Da10LU	

Modifier

Table 547: Properties of each modifier.

Id	Name	SBO
Da10LU	Da10LU	

Product

Table 548: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{181} = 2 \cdot k_{\text{kin68}} \cdot [\text{Da10LU}] \quad (387)$$

7.182 Reaction r182

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UU has site Y1045 phosphorylated

Reaction equation



Reactant

Table 549: Properties of each reactant.

Id	Name	SBO
Da01UU	Da01UU	

Modifier

Table 550: Properties of each modifier.

Id	Name	SBO
Da01UU	Da01UU	

Product

Table 551: Properties of each product.

Id	Name	SBO
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{182} = k_{\text{kin}} \cdot [\text{Da01UU}] \quad (389)$$

7.183 Reaction r183

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 552: Properties of each reactant.

Id	Name	SBO
Da01UU	Da01UU	

Modifier

Table 553: Properties of each modifier.

Id	Name	SBO
Da01UU	Da01UU	

Product

Table 554: Properties of each product.

Id	Name	SBO
Da02UU	Da02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{183} = k_{kin68} \cdot [\text{Da01UU}] \quad (391)$$

7.184 Reaction r184

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UG has site Y1045 phosphorylated

Reaction equation



Reactant

Table 555: Properties of each reactant.

Id	Name	SBO
Da01UG	Da01UG	

Modifier

Table 556: Properties of each modifier.

Id	Name	SBO
Da01UG	Da01UG	

Product

Table 557: Properties of each product.

Id	Name	SBO
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{184} = k_{kin} \cdot [\text{Da01UG}] \tag{393}$$

7.185 Reaction r185

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 558: Properties of each reactant.

Id	Name	SBO
Da01UG	Da01UG	

Modifier

Table 559: Properties of each modifier.

Id	Name	SBO
Da01UG	Da01UG	

Product

Table 560: Properties of each product.

Id	Name	SBO
Da02UG	Da02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{185} = k_{kin68} \cdot [Da01UG] \quad (395)$$

7.186 Reaction r186

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UL has site Y1045 phosphorylated

Reaction equation



Reactant

Table 561: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	

Modifier

Table 562: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	

Product

Table 563: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

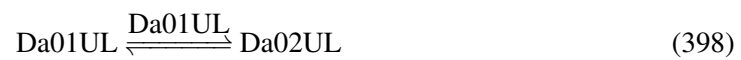
$$v_{186} = k_{\text{kin}} \cdot [\text{Da01UL}] \quad (397)$$

7.187 Reaction r187

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UL has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 564: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	

Modifier

Table 565: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	

Product

Table 566: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{187} = k_{kin68} \cdot [Da01UL] \quad (399)$$

7.188 Reaction r188

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 567: Properties of each reactant.

Id	Name	SBO
Da11UU	Da11UU	

Modifier

Table 568: Properties of each modifier.

Id	Name	SBO
Da11UU	Da11UU	

Product

Table 569: Properties of each product.

Id	Name	SBO
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{188} = kkin68 \cdot [Da11UU] \tag{401}$$

7.189 Reaction r189

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 570: Properties of each reactant.

Id	Name	SBO
Da11CU	Da11CU	

Modifier

Table 571: Properties of each modifier.

Id	Name	SBO
Da11CU	Da11CU	

Product

Table 572: Properties of each product.

Id	Name	SBO
Da12CU	Da12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{189} = kkin68 \cdot [Da11CU] \tag{403}$$

7.190 Reaction r190

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 573: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 574: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Product

Table 575: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{190} = k_{\text{kin68}} \cdot [\text{Da11LU}] \quad (405)$$

7.191 Reaction r191

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 576: Properties of each reactant.

Id	Name	SBO
Da11UG	Da11UG	

Modifier

Table 577: Properties of each modifier.

Id	Name	SBO
Da11UG	Da11UG	

Product

Table 578: Properties of each product.

Id	Name	SBO
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

$v_{191} = kkin68 \cdot [\text{Da11UG}]$

(407)

7.192 Reaction r192

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UL has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 579: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 580: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Product

Table 581: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{192} = k_{kin68} \cdot [\text{Da11UL}] \quad (409)$$

7.193 Reaction r193

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 582: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	

Modifier

Table 583: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	

Product

Table 584: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

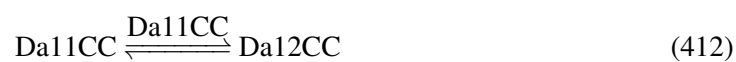
$$v_{193} = k_{kin68} \cdot [Da11CG] \quad (411)$$

7.194 Reaction r194

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CC has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 585: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	

Modifier

Table 586: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	

Product

Table 587: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{194} = k_{kin68} \cdot [Da11CC] \quad (413)$$

7.195 Reaction r195

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 588: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	

Modifier

Table 589: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	

Product

Table 590: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{195} = k_{kin68} \cdot [\text{Da11LG}] \quad (415)$$

7.196 Reaction r196

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UU has site Y1045 phosphorylated

Reaction equation



Reactant

Table 591: Properties of each reactant.

Id	Name	SBO
Da02UU	Da02UU	

Modifier

Table 592: Properties of each modifier.

Id	Name	SBO
Da02UU	Da02UU	

Product

Table 593: Properties of each product.

Id	Name	SBO
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{196} = k_{kin} \cdot [\text{Da02UU}] \quad (417)$$

7.197 Reaction r197

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UG has site Y1045 phosphorylated

Reaction equation**Reactant**

Table 594: Properties of each reactant.

Id	Name	SBO
Da02UG	Da02UG	

Modifier

Table 595: Properties of each modifier.

Id	Name	SBO
Da02UG	Da02UG	

Product

Table 596: Properties of each product.

Id	Name	SBO
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{197} = k_{kin} \cdot [\text{Da02UG}]$$

(419)

7.198 Reaction r198

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UL has site Y1045 phosphorylated

Reaction equation



Reactant

Table 597: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	

Modifier

Table 598: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	

Product

Table 599: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{198} = k_{kin} \cdot [\text{Da02UL}]$$

(421)

7.199 Reaction r199

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL00UU has site Y1045 phosphorylated

Reaction equation



Reactant

Table 600: Properties of each reactant.

Id	Name	SBO
DaL00UU	DaL00UU	

Modifier

Table 601: Properties of each modifier.

Id	Name	SBO
DaL00UU	DaL00UU	

Product

Table 602: Properties of each product.

Id	Name	SBO
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$v_{199} = k_{kin} \cdot [\text{DaL00UU}]$

(423)

7.200 Reaction r200

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL00UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 603: Properties of each reactant.

Id	Name	SBO
DaL00UU	DaL00UU	

Modifier

Table 604: Properties of each modifier.

Id	Name	SBO
DaL00UU	DaL00UU	

Product

Table 605: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{200} = 2 \cdot k_{\text{kin68}} \cdot [\text{DaL00UU}]$$

(425)

7.201 Reaction r201

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 606: Properties of each reactant.

Id	Name	SBO
DaL10UU	DaL10UU	

Modifier

Table 607: Properties of each modifier.

Id	Name	SBO
DaL10UU	DaL10UU	

Product

Table 608: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{201} = 2 \cdot k_{\text{kin68}} \cdot [\text{DaL10UU}] \quad (427)$$

7.202 Reaction r202

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10CU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 609: Properties of each reactant.

Id	Name	SBO
DaL10CU	DaL10CU	

Modifier

Table 610: Properties of each modifier.

Id	Name	SBO
DaL10CU	DaL10CU	

Product

Table 611: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{202} = 2 \cdot k_{kin68} \cdot [\text{DaL10CU}] \quad (429)$$

7.203 Reaction r203

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10LU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 612: Properties of each reactant.

Id	Name	SBO
DaL10LU	DaL10LU	

Modifier

Table 613: Properties of each modifier.

Id	Name	SBO
DaL10LU	DaL10LU	

Product

Table 614: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{203} = 2 \cdot k_{kin68} \cdot [\text{DaL10LU}] \quad (431)$$

7.204 Reaction r204

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UU has site Y1045 phosphorylated

Reaction equation



Reactant

Table 615: Properties of each reactant.

Id	Name	SBO
DaL01UU	DaL01UU	

Modifier

Table 616: Properties of each modifier.

Id	Name	SBO
DaL01UU	DaL01UU	

Product

Table 617: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{204} = k_{\text{kin}} \cdot [\text{DaL01UU}] \quad (433)$$

7.205 Reaction r205

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 618: Properties of each reactant.

Id	Name	SBO
DaL01UU	DaL01UU	

Modifier

Table 619: Properties of each modifier.

Id	Name	SBO
DaL01UU	DaL01UU	

Product

Table 620: Properties of each product.

Id	Name	SBO
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{205} = k_{kin68} \cdot [\text{DaL01UU}] \quad (435)$$

7.206 Reaction r206

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UG has site Y1045 phosphorylated

Reaction equation



Reactant

Table 621: Properties of each reactant.

Id	Name	SBO
DaL01UG	DaL01UG	

Modifier

Table 622: Properties of each modifier.

Id	Name	SBO
DaL01UG	DaL01UG	

Product

Table 623: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{206} = k_{kin} \cdot [\text{DaL01UG}] \quad (437)$$

7.207 Reaction r_{207}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 624: Properties of each reactant.

Id	Name	SBO
DaL01UG	DaL01UG	

Modifier

Table 625: Properties of each modifier.

Id	Name	SBO
DaL01UG	DaL01UG	

Product

Table 626: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{207} = k_{kin68} \cdot [\text{DaL01UG}] \quad (439)$$

7.208 Reaction r208

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UL has site Y1045 phosphorylated

Reaction equation



Reactant

Table 627: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 628: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Product

Table 629: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{208} = k_{\text{kin}} \cdot [\text{DaL01UL}] \quad (441)$$

7.209 Reaction r209

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UL has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 630: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 631: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Product

Table 632: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$v_{209} = k_{kin68} \cdot [\text{DaL01UL}]$

(443)

7.210 Reaction r210

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 633: Properties of each reactant.

Id	Name	SBO
DaL11UU	DaL11UU	

Modifier

Table 634: Properties of each modifier.

Id	Name	SBO
DaL11UU	DaL11UU	

Product

Table 635: Properties of each product.

Id	Name	SBO
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{210} = k_{kin68} \cdot [\text{DaL11UU}] \quad (445)$$

7.211 Reaction r211

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 636: Properties of each reactant.

Id	Name	SBO
DaL11CU	DaL11CU	

Modifier

Table 637: Properties of each modifier.

Id	Name	SBO
DaL11CU	DaL11CU	

Product

Table 638: Properties of each product.

Id	Name	SBO
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{211} = k_{kin68} \cdot [\text{DaL11CU}] \quad (447)$$

7.212 Reaction r212

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LU has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 639: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 640: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Product

Table 641: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{212} = k_{kin68} \cdot [\text{DaL11LU}] \quad (449)$$

7.213 Reaction r213

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 642: Properties of each reactant.

Id	Name	SBO
DaL11UG	DaL11UG	

Modifier

Table 643: Properties of each modifier.

Id	Name	SBO
DaL11UG	DaL11UG	

Product

Table 644: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{213} = k_{kin68} \cdot [\text{DaL11UG}] \quad (451)$$

7.214 Reaction r214

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UL has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 645: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 646: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Product

Table 647: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{214} = k_{kin68} \cdot [\text{DaL11UL}] \quad (453)$$

7.215 Reaction r215

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 648: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 649: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Product

Table 650: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{215} = k_{kin68} \cdot [\text{DaL11CG}] \quad (455)$$

7.216 Reaction r216

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CC has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 651: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 652: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Product

Table 653: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{216} = k_{kin68} \cdot [\text{DaL11CC}] \quad (457)$$

7.217 Reaction r217

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LG has site Y1068/Y1086 phosphorylated

Reaction equation



Reactant

Table 654: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 655: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Product

Table 656: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{217} = k_{\text{kin68}} \cdot [\text{DaL11LG}] \quad (459)$$

7.218 Reaction r218

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UU has site Y1045 phosphorylated

Reaction equation



Reactant

Table 657: Properties of each reactant.

Id	Name	SBO
DaL02UU	DaL02UU	

Modifier

Table 658: Properties of each modifier.

Id	Name	SBO
DaL02UU	DaL02UU	

Product

Table 659: Properties of each product.

Id	Name	SBO
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{218} = k_{kin} \cdot [\text{DaL02UU}]$$

(461)

7.219 Reaction r219

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UG has site Y1045 phosphorylated

Reaction equation



Reactant

Table 660: Properties of each reactant.

Id	Name	SBO
DaL02UG	DaL02UG	

Modifier

Table 661: Properties of each modifier.

Id	Name	SBO
DaL02UG	DaL02UG	

Product

Table 662: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{219} = k_{kin} \cdot [\text{DaL02UG}] \quad (463)$$

7.220 Reaction r220

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UL has site Y1045 phosphorylated

Reaction equation



Reactant

Table 663: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 664: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Product

Table 665: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{220} = k_{\text{kin}} \cdot [\text{DaL02UL}] \quad (465)$$

7.221 Reaction r221

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Grb2 bind yielding CG

Reaction equation



Reactants

Table 666: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Grb2	Grb2	

Modifiers

Table 667: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
Grb2	Grb2	

Product

Table 668: Properties of each product.

Id	Name	SBO
CG	CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{221} = kbcg \cdot [Cb1] \cdot [Grb2] \quad (467)$$

7.222 Reaction r222

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name CG dissociates to Cbl and Grb2

Reaction equation



Reactant

Table 669: Properties of each reactant.

Id	Name	SBO
CG	CG	

Modifier

Table 670: Properties of each modifier.

Id	Name	SBO
CG	CG	

Products

Table 671: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Grb2	Grb2	

Kinetic Law

Derived unit contains undeclared units

$$v_{222} = k_{ucg} \cdot [CG] \quad (469)$$

7.223 Reaction r223

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc10UU bind yielding Rc10CU

Reaction equation



Reactants

Table 672: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc10UU	Rc10UU	

Modifiers

Table 673: Properties of each modifier.

Id	Name	SBO
Cb1	Cb1	
Rc10UU	Rc10UU	

Product

Table 674: Properties of each product.

Id	Name	SBO
Rc10CU	Rc10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{223} = k_{b45} \cdot [\text{Cb1}] \cdot [\text{Rc10UU}] \quad (471)$$

7.224 Reaction r224

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc10CU dissociates to Cb1 and Rc10UU

Reaction equation



Reactant

Table 675: Properties of each reactant.

Id	Name	SBO
Rc10CU	Rc10CU	

Modifier

Table 676: Properties of each modifier.

Id	Name	SBO
Rc10CU	Rc10CU	

Products

Table 677: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Rc10UU	Rc10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{224} = k_{u45} \cdot [\text{Rc10CU}] \quad (473)$$

7.225 Reaction r225

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc10UU bind yielding Rc10LU

Reaction equation



Reactants

Table 678: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc10UU	Rc10UU	

Modifiers

Table 679: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc10UU	Rc10UU	

Product

Table 680: Properties of each product.

Id	Name	SBO
Rc10LU	Rc10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{225} = kb45 \cdot [CG] \cdot [Rc10UU] \quad (475)$$

7.226 Reaction r226

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc10LU dissociates to CG and Rc10UU

Reaction equation



Reactant

Table 681: Properties of each reactant.

Id	Name	SBO
Rc10LU	Rc10LU	

Modifier

Table 682: Properties of each modifier.

Id	Name	SBO
Rc10LU	Rc10LU	

Products

Table 683: Properties of each product.

Id	Name	SBO
CG	CG	
Rc10UU	Rc10UU	

Kinetic Law

Derived unit contains undeclared units

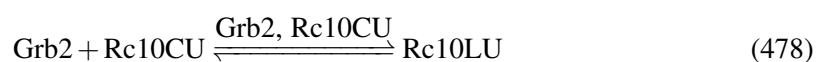
$$v_{226} = k_{u45} \cdot [Rc10LU] \quad (477)$$

7.227 Reaction r227

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc10CU bind yielding Rc10LU

Reaction equation



Reactants

Table 684: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc10CU	Rc10CU	

Modifiers

Table 685: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc10CU	Rc10CU	

Product

Table 686: Properties of each product.

Id	Name	SBO
Rc10LU	Rc10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{227} = kbcg \cdot [\text{Grb2}] \cdot [\text{Rc10CU}] \quad (479)$$

7.228 Reaction r228

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc10LU dissociates to Grb2 and Rc10CU

Reaction equation



Reactant

Table 687: Properties of each reactant.

Id	Name	SBO
Rc10LU	Rc10LU	

Modifier

Table 688: Properties of each modifier.

Id	Name	SBO
Rc10LU	Rc10LU	

Products

Table 689: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc10CU	Rc10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{228} = kucg \cdot [Rc10LU] \quad (481)$$

7.229 Reaction r229

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc01UU bind yielding Rc01UG

Reaction equation



Reactants

Table 690: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc01UU	Rc01UU	

Modifiers

Table 691: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc01UU	Rc01UU	

Product

Table 692: Properties of each product.

Id	Name	SBO
Rc01UG	Rc01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{229} = kb68 \cdot [Grb2] \cdot [Rc01UU] \quad (483)$$

7.230 Reaction r230

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc01UG dissociates to Grb2 and Rc01UU

Reaction equation



Reactant

Table 693: Properties of each reactant.

Id	Name	SBO
Rc01UG	Rc01UG	

Modifier

Table 694: Properties of each modifier.

Id	Name	SBO
Rc01UG	Rc01UG	

Products

Table 695: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc01UU	Rc01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{230} = ku_{68} \cdot [Rc01UG] \quad (485)$$

7.231 Reaction r231

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc01UU bind yielding Rc01UL

Reaction equation



Reactants

Table 696: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc01UU	Rc01UU	

Modifiers

Table 697: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc01UU	Rc01UU	

Product

Table 698: Properties of each product.

Id	Name	SBO
Rc01UL	Rc01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{231} = kb68 \cdot [CG] \cdot [Rc01UU] \quad (487)$$

7.232 Reaction r232

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc01UL dissociates to CG and Rc01UU

Reaction equation



Reactant

Table 699: Properties of each reactant.

Id	Name	SBO
Rc01UL	Rc01UL	

Modifier

Table 700: Properties of each modifier.

Id	Name	SBO
Rc01UL	Rc01UL	

Products

Table 701: Properties of each product.

Id	Name	SBO
CG	CG	
Rc01UU	Rc01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{232} = ku68 \cdot [Rc01UL] \quad (489)$$

7.233 Reaction r233

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc01UG bind yielding Rc01UL

Reaction equation



Reactants

Table 702: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc01UG	Rc01UG	

Modifiers

Table 703: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Rc01UG	Rc01UG	

Product

Table 704: Properties of each product.

Id	Name	SBO
Rc01UL	Rc01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{233} = kbcg \cdot [Cbl] \cdot [Rc01UG] \quad (491)$$

7.234 Reaction r234

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc01UL dissociates to Cbl and Rc01UG

Reaction equation



Reactant

Table 705: Properties of each reactant.

Id	Name	SBO
Rc01UL	Rc01UL	

Modifier

Table 706: Properties of each modifier.

Id	Name	SBO
Rc01UL	Rc01UL	

Products

Table 707: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Rc01UG	Rc01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{234} = kucg \cdot [Rc01UL] \quad (493)$$

7.235 Reaction r235

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc11UU bind yielding Rc11CU

Reaction equation



Reactants

Table 708: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc11UU	Rc11UU	

Modifiers

Table 709: Properties of each modifier.

Id	Name	SBO
Cb1	Cb1	
Rc11UU	Rc11UU	

Product

Table 710: Properties of each product.

Id	Name	SBO
Rc11CU	Rc11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{235} = k_{b45} \cdot [\text{Cb1}] \cdot [\text{Rc11UU}] \quad (495)$$

7.236 Reaction r236

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11CU dissociates to Cb1 and Rc11UU

Reaction equation



Reactant

Table 711: Properties of each reactant.

Id	Name	SBO
Rc11CU	Rc11CU	

Modifier

Table 712: Properties of each modifier.

Id	Name	SBO
Rc11CU	Rc11CU	

Products

Table 713: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Rc11UU	Rc11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{236} = ku_{45} \cdot [Rc11CU] \quad (497)$$

7.237 Reaction r237

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc11UU bind yielding Rc11LU

Reaction equation



Reactants

Table 714: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc11UU	Rc11UU	

Modifiers

Table 715: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc11UU	Rc11UU	

Product

Table 716: Properties of each product.

Id	Name	SBO
Rc11LU	Rc11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{237} = kb45 \cdot [CG] \cdot [Rc11UU] \quad (499)$$

7.238 Reaction r238

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11LU dissociates to CG and Rc11UU

Reaction equation



Reactant

Table 717: Properties of each reactant.

Id	Name	SBO
Rc11LU	Rc11LU	

Modifier

Table 718: Properties of each modifier.

Id	Name	SBO
Rc11LU	Rc11LU	

Products

Table 719: Properties of each product.

Id	Name	SBO
CG	CG	
Rc11UU	Rc11UU	

Kinetic Law

Derived unit contains undeclared units

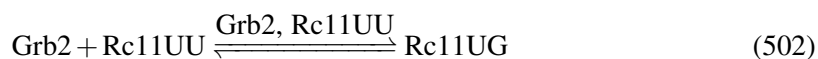
$$v_{238} = k_{u45} \cdot [\text{Rc11LU}] \quad (501)$$

7.239 Reaction r239

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc11UU bind yielding Rc11UG

Reaction equation



Reactants

Table 720: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc11UU	Rc11UU	

Modifiers

Table 721: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc11UU	Rc11UU	

Product

Table 722: Properties of each product.

Id	Name	SBO
Rc11UG	Rc11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{239} = kb68 \cdot [Grb2] \cdot [Rc11UU] \quad (503)$$

7.240 Reaction r240

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11UG dissociates to Grb2 and Rc11UU

Reaction equation



Reactant

Table 723: Properties of each reactant.

Id	Name	SBO
Rc11UG	Rc11UG	

Modifier

Table 724: Properties of each modifier.

Id	Name	SBO
Rc11UG	Rc11UG	

Products

Table 725: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc11UU	Rc11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{240} = ku_{68} \cdot [Rc11UG] \quad (505)$$

7.241 Reaction r241

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc11UU bind yielding Rc11UL

Reaction equation



Reactants

Table 726: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc11UU	Rc11UU	

Modifiers

Table 727: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc11UU	Rc11UU	

Product

Table 728: Properties of each product.

Id	Name	SBO
Rc11UL	Rc11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{241} = kb68 \cdot [CG] \cdot [Rc11UU] \quad (507)$$

7.242 Reaction r242

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11UL dissociates to CG and Rc11UU

Reaction equation



Reactant

Table 729: Properties of each reactant.

Id	Name	SBO
Rc11UL	Rc11UL	

Modifier

Table 730: Properties of each modifier.

Id	Name	SBO
Rc11UL	Rc11UL	

Products

Table 731: Properties of each product.

Id	Name	SBO
CG	CG	
Rc11UU	Rc11UU	

Kinetic Law

Derived unit contains undeclared units

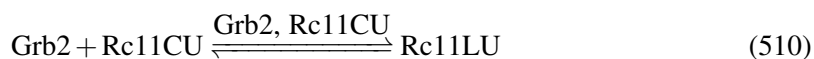
$$v_{242} = ku68 \cdot [Rc11UL] \quad (509)$$

7.243 Reaction r243

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc11CU bind yielding Rc11LU

Reaction equation



Reactants

Table 732: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc11CU	Rc11CU	

Modifiers

Table 733: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc11CU	Rc11CU	

Product

Table 734: Properties of each product.

Id	Name	SBO
Rc11LU	Rc11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{243} = kbcg \cdot [\text{Grb2}] \cdot [\text{Rc11CU}] \quad (511)$$

7.244 Reaction r244

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11LU dissociates to Grb2 and Rc11CU

Reaction equation



Reactant

Table 735: Properties of each reactant.

Id	Name	SBO
Rc11LU	Rc11LU	

Modifier

Table 736: Properties of each modifier.

Id	Name	SBO
Rc11LU	Rc11LU	

Products

Table 737: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc11CU	Rc11CU	

Kinetic Law

Derived unit contains undeclared units

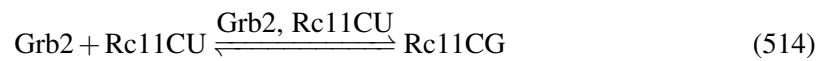
$$v_{244} = kucg \cdot [Rc11LU] \quad (513)$$

7.245 Reaction r245

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc11CU bind yielding Rc11CG

Reaction equation



Reactants

Table 738: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc11CU	Rc11CU	

Modifiers

Table 739: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc11CU	Rc11CU	

Product

Table 740: Properties of each product.

Id	Name	SBO
Rc11CG	Rc11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{245} = kb68 \cdot [Grb2] \cdot [Rc11CU] \quad (515)$$

7.246 Reaction r246

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11CG dissociates to Grb2 and Rc11CU

Reaction equation



Reactant

Table 741: Properties of each reactant.

Id	Name	SBO
Rc11CG	Rc11CG	

Modifier

Table 742: Properties of each modifier.

Id	Name	SBO
Rc11CG	Rc11CG	

Products

Table 743: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc11CU	Rc11CU	

Kinetic Law

Derived unit contains undeclared units

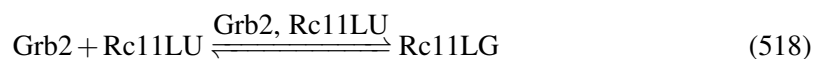
$$v_{246} = ku68 \cdot [Rc11CG] \quad (517)$$

7.247 Reaction r247

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc11LU bind yielding Rc11LG

Reaction equation



Reactants

Table 744: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc11LU	Rc11LU	

Modifiers

Table 745: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc11LU	Rc11LU	

Product

Table 746: Properties of each product.

Id	Name	SBO
Rc11LG	Rc11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{247} = kb68 \cdot [Grb2] \cdot [Rc11LU] \quad (519)$$

7.248 Reaction r248

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11LG dissociates to Grb2 and Rc11LU

Reaction equation



Reactant

Table 747: Properties of each reactant.

Id	Name	SBO
Rc11LG	Rc11LG	

Modifier

Table 748: Properties of each modifier.

Id	Name	SBO
Rc11LG	Rc11LG	

Products

Table 749: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc11LU	Rc11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{248} = ku68 \cdot [Rc11LG] \quad (521)$$

7.249 Reaction r249

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11LU transforms in (singly-bound -> doubly-bound) Rc11CC

Reaction equation



Reactant

Table 750: Properties of each reactant.

Id	Name	SBO
Rc11LU	Rc11LU	

Modifier

Table 751: Properties of each modifier.

Id	Name	SBO
Rc11LU	Rc11LU	

Product

Table 752: Properties of each product.

Id	Name	SBO
Rc11CC	Rc11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{249} = kb68P \cdot [Rc11LU] \quad (523)$$

7.250 Reaction r250

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CC tranforms in (doubly-bound -> singly-bound) Rc11LU

Reaction equation



Reactant

Table 753: Properties of each reactant.

Id	Name	SBO
Rc11CC	Rc11CC	

Modifier

Table 754: Properties of each modifier.

Id	Name	SBO
Rc11CC	Rc11CC	

Product

Table 755: Properties of each product.

Id	Name	SBO
Rc11LU	Rc11LU	

Kinetic Law

Derived unit contains undeclared units

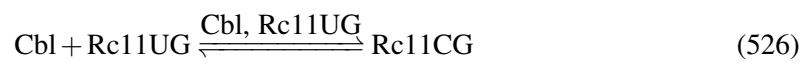
$$v_{250} = ku68M \cdot [Rc11CC] \quad (525)$$

7.251 Reaction r251

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc11UG bind yielding Rc11CG

Reaction equation



Reactants

Table 756: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc11UG	Rc11UG	

Modifiers

Table 757: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Rc11UG	Rc11UG	

Product

Table 758: Properties of each product.

Id	Name	SBO
Rc11CG	Rc11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{251} = kb45 \cdot [Cbl] \cdot [Rc11UG] \quad (527)$$

7.252 Reaction r252

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11CG dissociates to Cbl and Rc11UG

Reaction equation**Reactant**

Table 759: Properties of each reactant.

Id	Name	SBO
Rc11CG	Rc11CG	

Modifier

Table 760: Properties of each modifier.

Id	Name	SBO
Rc11CG	Rc11CG	

Products

Table 761: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
Rc11UG	Rc11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{252} = k_{u45} \cdot [Rc11CG] \quad (529)$$

7.253 Reaction r253

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc11UG bind yielding Rc11LG

Reaction equation



Reactants

Table 762: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc11UG	Rc11UG	

Modifiers

Table 763: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc11UG	Rc11UG	

Product

Table 764: Properties of each product.

Id	Name	SBO
Rc11LG	Rc11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{253} = k_{b45} \cdot [\text{CG}] \cdot [\text{Rc11UG}] \quad (531)$$

7.254 Reaction r254

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11LG dissociates to CG and Rc11UG

Reaction equation



Reactant

Table 765: Properties of each reactant.

Id	Name	SBO
Rc11LG	Rc11LG	

Modifier

Table 766: Properties of each modifier.

Id	Name	SBO
Rc11LG	Rc11LG	

Products

Table 767: Properties of each product.

Id	Name	SBO
CG	CG	
Rc11UG	Rc11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{254} = k_{u45} \cdot [\text{Rc11LG}] \quad (533)$$

7.255 Reaction r255

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc11UG bind yielding Rc11UL

Reaction equation



Reactants

Table 768: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc11UG	Rc11UG	

Modifiers

Table 769: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Rc11UG	Rc11UG	

Product

Table 770: Properties of each product.

Id	Name	SBO
Rc11UL	Rc11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{255} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{Rc11UG}] \quad (535)$$

7.256 Reaction r_{256}

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11UL dissociates to Cbl and Rc11UG

Reaction equation



Reactant

Table 771: Properties of each reactant.

Id	Name	SBO
Rc11UL	Rc11UL	

Modifier

Table 772: Properties of each modifier.

Id	Name	SBO
Rc11UL	Rc11UL	

Products

Table 773: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Rc11UG	Rc11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{256} = k_{ucg} \cdot [\text{Rc11UL}] \quad (537)$$

7.257 Reaction r_{257}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UL transforms in (singly-bound -> doubly-bound) Rc11CC

Reaction equation



Reactant

Table 774: Properties of each reactant.

Id	Name	SBO
Rc11UL	Rc11UL	

Modifier

Table 775: Properties of each modifier.

Id	Name	SBO
Rc11UL	Rc11UL	

Product

Table 776: Properties of each product.

Id	Name	SBO
Rc11CC	Rc11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{257} = \text{kb45P} \cdot [\text{Rc11UL}]$$

(539)

7.258 Reaction r258

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CC tranforms in (doubly-bound -> singly-bound) Rc11UL

Reaction equation



Reactant

Table 777: Properties of each reactant.

Id	Name	SBO
Rc11CC	Rc11CC	

Modifier

Table 778: Properties of each modifier.

Id	Name	SBO
Rc11CC	Rc11CC	

Product

Table 779: Properties of each product.

Id	Name	SBO
Rc11UL	Rc11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{258} = k_{u45M} \cdot [Rc11CC] \quad (541)$$

7.259 Reaction r259

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CG transforms in (Cbl bind Grb2 directly) Rc11CC

Reaction equation



Reactant

Table 780: Properties of each reactant.

Id	Name	SBO
Rc11CG	Rc11CG	

Modifier

Table 781: Properties of each modifier.

Id	Name	SBO
Rc11CG	Rc11CG	

Product

Table 782: Properties of each product.

Id	Name	SBO
Rc11CC	Rc11CC	

Kinetic Law

Derived unit contains undeclared units

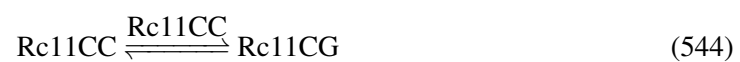
$$v_{259} = kbcgP \cdot [Rc11CG] \quad (543)$$

7.260 Reaction r260

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Rc11CG

Reaction equation



Reactant

Table 783: Properties of each reactant.

Id	Name	SBO
Rc11CC	Rc11CC	

Modifier

Table 784: Properties of each modifier.

Id	Name	SBO
Rc11CC	Rc11CC	

Product

Table 785: Properties of each product.

Id	Name	SBO
Rc11CG	Rc11CG	

Kinetic Law

Derived unit contains undeclared units

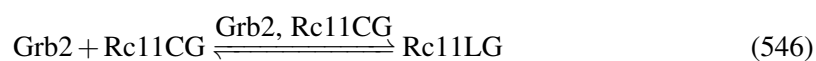
$$v_{260} = k_{ucgM} \cdot [Rc11CC] \quad (545)$$

7.261 Reaction r261

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc11CG bind yielding Rc11LG

Reaction equation



Reactants

Table 786: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc11CG	Rc11CG	

Modifiers

Table 787: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc11CG	Rc11CG	

Product

Table 788: Properties of each product.

Id	Name	SBO
Rc11LG	Rc11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{261} = kbcg \cdot [\text{Grb2}] \cdot [\text{Rc11CG}] \quad (547)$$

7.262 Reaction r262

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc11LG dissociates to Grb2 and Rc11CG

Reaction equation



Reactant

Table 789: Properties of each reactant.

Id	Name	SBO
Rc11LG	Rc11LG	

Modifier

Table 790: Properties of each modifier.

Id	Name	SBO
Rc11LG	Rc11LG	

Products

Table 791: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc11CG	Rc11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{262} = kucg \cdot [Rc11LG] \quad (549)$$

7.263 Reaction r263

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc02UU bind yielding Rc02UG

Reaction equation



Reactants

Table 792: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc02UU	Rc02UU	

Modifiers

Table 793: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc02UU	Rc02UU	

Product

Table 794: Properties of each product.

Id	Name	SBO
Rc02UG	Rc02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{263} = 2 \cdot kb68 \cdot [Grb2] \cdot [Rc02UU] \quad (551)$$

7.264 Reaction r264

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc02UG dissociates to Grb2 and Rc02UU

Reaction equation



Reactant

Table 795: Properties of each reactant.

Id	Name	SBO
Rc02UG	Rc02UG	

Modifier

Table 796: Properties of each modifier.

Id	Name	SBO
Rc02UG	Rc02UG	

Products

Table 797: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc02UU	Rc02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{264} = k_{u68} \cdot [Rc02UG] \quad (553)$$

7.265 Reaction r265

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc02UU bind yielding Rc02UL

Reaction equation



Reactants

Table 798: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc02UU	Rc02UU	

Modifiers

Table 799: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc02UU	Rc02UU	

Product

Table 800: Properties of each product.

Id	Name	SBO
Rc02UL	Rc02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{265} = 2 \cdot kb68 \cdot [CG] \cdot [Rc02UU] \quad (555)$$

7.266 Reaction r266

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc02UL dissociates to CG and Rc02UU

Reaction equation



Reactant

Table 801: Properties of each reactant.

Id	Name	SBO
Rc02UL	Rc02UL	

Modifier

Table 802: Properties of each modifier.

Id	Name	SBO
Rc02UL	Rc02UL	

Products

Table 803: Properties of each product.

Id	Name	SBO
CG	CG	
Rc02UU	Rc02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{266} = k_{u68} \cdot [Rc02UL] \quad (557)$$

7.267 Reaction r267

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc02UG bind yielding Rc02UL

Reaction equation



Reactants

Table 804: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc02UG	Rc02UG	

Modifiers

Table 805: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Rc02UG	Rc02UG	

Product

Table 806: Properties of each product.

Id	Name	SBO
Rc02UL	Rc02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{267} = kbcg \cdot [Cbl] \cdot [Rc02UG] \quad (559)$$

7.268 Reaction r268

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc02UL dissociates to Cbl and Rc02UG

Reaction equation



Reactant

Table 807: Properties of each reactant.

Id	Name	SBO
Rc02UL	Rc02UL	

Modifier

Table 808: Properties of each modifier.

Id	Name	SBO
Rc02UL	Rc02UL	

Products

Table 809: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
Rc02UG	Rc02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{268} = kucg \cdot [Rc02UL] \quad (561)$$

7.269 Reaction r269

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc12UU bind yielding Rc12CU

Reaction equation



Reactants

Table 810: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
Rc12UU	Rc12UU	

Modifiers

Table 811: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
Rc12UU	Rc12UU	

Product

Table 812: Properties of each product.

Id	Name	SBO
Rc12CU	Rc12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{269} = kb45 \cdot [Cb1] \cdot [Rc12UU] \quad (563)$$

7.270 Reaction r270

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12CU dissociates to Cbl and Rc12UU

Reaction equation



Reactant

Table 813: Properties of each reactant.

Id	Name	SBO
Rc12CU	Rc12CU	

Modifier

Table 814: Properties of each modifier.

Id	Name	SBO
Rc12CU	Rc12CU	

Products

Table 815: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
Rc12UU	Rc12UU	

Kinetic Law

Derived unit contains undeclared units

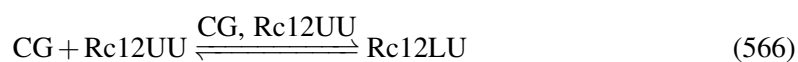
$$v_{270} = k_{u45} \cdot [\text{Rc12CU}] \quad (565)$$

7.271 Reaction r271

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc12UU bind yielding Rc12LU

Reaction equation



Reactants

Table 816: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc12UU	Rc12UU	

Modifiers

Table 817: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc12UU	Rc12UU	

Product

Table 818: Properties of each product.

Id	Name	SBO
Rc12LU	Rc12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{271} = kb45 \cdot [CG] \cdot [Rc12UU] \quad (567)$$

7.272 Reaction r272

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12LU dissociates to CG and Rc12UU

Reaction equation



Reactant

Table 819: Properties of each reactant.

Id	Name	SBO
Rc12LU	Rc12LU	

Modifier

Table 820: Properties of each modifier.

Id	Name	SBO
Rc12LU	Rc12LU	

Products

Table 821: Properties of each product.

Id	Name	SBO
CG	CG	
Rc12UU	Rc12UU	

Kinetic Law

Derived unit contains undeclared units

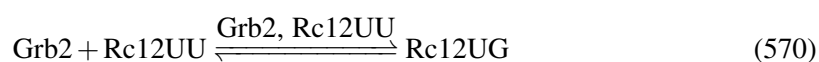
$$v_{272} = k_{u45} \cdot [Rc12LU] \quad (569)$$

7.273 Reaction r273

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc12UU bind yielding Rc12UG

Reaction equation



Reactants

Table 822: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc12UU	Rc12UU	

Modifiers

Table 823: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc12UU	Rc12UU	

Product

Table 824: Properties of each product.

Id	Name	SBO
Rc12UG	Rc12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{273} = 2 \cdot kb68 \cdot [Grb2] \cdot [Rc12UU] \quad (571)$$

7.274 Reaction r274

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12UG dissociates to Grb2 and Rc12UU

Reaction equation



Reactant

Table 825: Properties of each reactant.

Id	Name	SBO
Rc12UG	Rc12UG	

Modifier

Table 826: Properties of each modifier.

Id	Name	SBO
Rc12UG	Rc12UG	

Products

Table 827: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc12UU	Rc12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{274} = ku_{68} \cdot [Rc12UG] \quad (573)$$

7.275 Reaction r275

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc12UU bind yielding Rc12UL

Reaction equation



Reactants

Table 828: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc12UU	Rc12UU	

Modifiers

Table 829: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc12UU	Rc12UU	

Product

Table 830: Properties of each product.

Id	Name	SBO
Rc12UL	Rc12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{275} = 2 \cdot kb68 \cdot [CG] \cdot [Rc12UU] \quad (575)$$

7.276 Reaction r276

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12UL dissociates to CG and Rc12UU

Reaction equation



Reactant

Table 831: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	

Modifier

Table 832: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	

Products

Table 833: Properties of each product.

Id	Name	SBO
CG	CG	
Rc12UU	Rc12UU	

Kinetic Law

Derived unit contains undeclared units

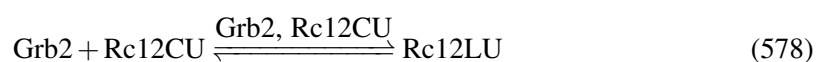
$$v_{276} = ku68 \cdot [Rc12UL] \quad (577)$$

7.277 Reaction r277

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc12CU bind yielding Rc12LU

Reaction equation



Reactants

Table 834: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc12CU	Rc12CU	

Modifiers

Table 835: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc12CU	Rc12CU	

Product

Table 836: Properties of each product.

Id	Name	SBO
Rc12LU	Rc12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{277} = kbcg \cdot [\text{Grb2}] \cdot [\text{Rc12CU}] \quad (579)$$

7.278 Reaction r278

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12LU dissociates to Grb2 and Rc12CU

Reaction equation



Reactant

Table 837: Properties of each reactant.

Id	Name	SBO
Rc12LU	Rc12LU	

Modifier

Table 838: Properties of each modifier.

Id	Name	SBO
Rc12LU	Rc12LU	

Products

Table 839: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc12CU	Rc12CU	

Kinetic Law

Derived unit contains undeclared units

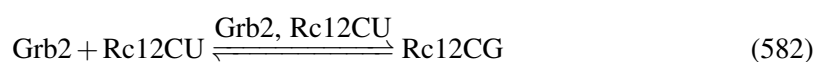
$$v_{278} = kucg \cdot [Rc12LU] \quad (581)$$

7.279 Reaction r279

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc12CU bind yielding Rc12CG

Reaction equation



Reactants

Table 840: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc12CU	Rc12CU	

Modifiers

Table 841: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc12CU	Rc12CU	

Product

Table 842: Properties of each product.

Id	Name	SBO
Rc12CG	Rc12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{279} = 2 \cdot kb68 \cdot [Grb2] \cdot [Rc12CU] \quad (583)$$

7.280 Reaction r280

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12CG dissociates to Grb2 and Rc12CU

Reaction equation



Reactant

Table 843: Properties of each reactant.

Id	Name	SBO
Rc12CG	Rc12CG	

Modifier

Table 844: Properties of each modifier.

Id	Name	SBO
Rc12CG	Rc12CG	

Products

Table 845: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc12CU	Rc12CU	

Kinetic Law

Derived unit contains undeclared units

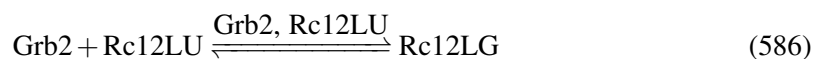
$$v_{280} = k_{u68} \cdot [\text{Rc12CG}] \quad (585)$$

7.281 Reaction r281

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc12LU bind yielding Rc12LG

Reaction equation



Reactants

Table 846: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc12LU	Rc12LU	

Modifiers

Table 847: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc12LU	Rc12LU	

Product

Table 848: Properties of each product.

Id	Name	SBO
Rc12LG	Rc12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{281} = 2 \cdot kb68 \cdot [Grb2] \cdot [Rc12LU] \quad (587)$$

7.282 Reaction r282

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12LG dissociates to Grb2 and Rc12LU

Reaction equation



Reactant

Table 849: Properties of each reactant.

Id	Name	SBO
Rc12LG	Rc12LG	

Modifier

Table 850: Properties of each modifier.

Id	Name	SBO
Rc12LG	Rc12LG	

Products

Table 851: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc12LU	Rc12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{282} = ku68 \cdot [Rc12LG] \quad (589)$$

7.283 Reaction r283

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12LU transforms in (singly-bound -> doubly-bound) Rc12CC

Reaction equation



Reactant

Table 852: Properties of each reactant.

Id	Name	SBO
Rc12LU	Rc12LU	

Modifier

Table 853: Properties of each modifier.

Id	Name	SBO
Rc12LU	Rc12LU	

Product

Table 854: Properties of each product.

Id	Name	SBO
Rc12CC	Rc12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{283} = 2 \cdot kb68P \cdot [Rc12LU] \quad (591)$$

7.284 Reaction r284

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CC tranforms in (doubly-bound -> singly-bound) Rc12LU

Reaction equation



Reactant

Table 855: Properties of each reactant.

Id	Name	SBO
Rc12CC	Rc12CC	

Modifier

Table 856: Properties of each modifier.

Id	Name	SBO
Rc12CC	Rc12CC	

Product

Table 857: Properties of each product.

Id	Name	SBO
Rc12LU	Rc12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{284} = k_{u68M} \cdot [Rc12CC] \quad (593)$$

7.285 Reaction r285

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc12UG bind yielding Rc12CG

Reaction equation



Reactants

Table 858: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc12UG	Rc12UG	

Modifiers

Table 859: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Rc12UG	Rc12UG	

Product

Table 860: Properties of each product.

Id	Name	SBO
Rc12CG	Rc12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{285} = kb45 \cdot [Cbl] \cdot [Rc12UG] \quad (595)$$

7.286 Reaction r286

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12CG dissociates to Cbl and Rc12UG

Reaction equation



Reactant

Table 861: Properties of each reactant.

Id	Name	SBO
Rc12CG	Rc12CG	

Modifier

Table 862: Properties of each modifier.

Id	Name	SBO
Rc12CG	Rc12CG	

Products

Table 863: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
Rc12UG	Rc12UG	

Kinetic Law

Derived unit contains undeclared units

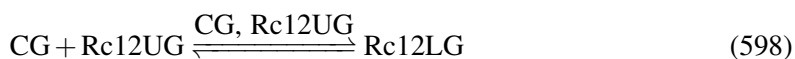
$$v_{286} = k_{u45} \cdot [\text{Rc12CG}] \quad (597)$$

7.287 Reaction r287

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Rc12UG bind yielding Rc12LG

Reaction equation



Reactants

Table 864: Properties of each reactant.

Id	Name	SBO
CG	CG	
Rc12UG	Rc12UG	

Modifiers

Table 865: Properties of each modifier.

Id	Name	SBO
CG	CG	
Rc12UG	Rc12UG	

Product

Table 866: Properties of each product.

Id	Name	SBO
Rc12LG	Rc12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{287} = k_{b45} \cdot [CG] \cdot [Rc12UG]$$

(599)

7.288 Reaction r288

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12LG dissociates to CG and Rc12UG

Reaction equation



Reactant

Table 867: Properties of each reactant.

Id	Name	SBO
Rc12LG	Rc12LG	

Modifier

Table 868: Properties of each modifier.

Id	Name	SBO
Rc12LG	Rc12LG	

Products

Table 869: Properties of each product.

Id	Name	SBO
CG	CG	
Rc12UG	Rc12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{288} = k_{u45} \cdot [\text{Rc12LG}] \quad (601)$$

7.289 Reaction r289

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Rc12UG bind yielding Rc12UL

Reaction equation



Reactants

Table 870: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Rc12UG	Rc12UG	

Modifiers

Table 871: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Rc12UG	Rc12UG	

Product

Table 872: Properties of each product.

Id	Name	SBO
Rc12UL	Rc12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{289} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{Rc12UG}] \quad (603)$$

7.290 Reaction r290

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12UL dissociates to Cbl and Rc12UG

Reaction equation



Reactant

Table 873: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	

Modifier

Table 874: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	

Products

Table 875: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Rc12UG	Rc12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{290} = k_{ucg} \cdot [\text{Rc12UL}] \quad (605)$$

7.291 Reaction r291

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UL transforms in (singly-bound -> doubly-bound) Rc12CC

Reaction equation



Reactant

Table 876: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	

Modifier

Table 877: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	

Product

Table 878: Properties of each product.

Id	Name	SBO
Rc12CC	Rc12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{291} = \text{kb45P} \cdot [\text{Rc12UL}]$$

(607)

7.292 Reaction r292

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CC tranforms in (doubly-bound -> singly-bound) Rc12UL

Reaction equation



Reactant

Table 879: Properties of each reactant.

Id	Name	SBO
Rc12CC	Rc12CC	

Modifier

Table 880: Properties of each modifier.

Id	Name	SBO
Rc12CC	Rc12CC	

Product

Table 881: Properties of each product.

Id	Name	SBO
Rc12UL	Rc12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{292} = k_{u45M} \cdot [Rc12CC] \quad (609)$$

7.293 Reaction r293

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CG transforms in (Cbl bind Grb2 directly) Rc12CC

Reaction equation



Reactant

Table 882: Properties of each reactant.

Id	Name	SBO
Rc12CG	Rc12CG	

Modifier

Table 883: Properties of each modifier.

Id	Name	SBO
Rc12CG	Rc12CG	

Product

Table 884: Properties of each product.

Id	Name	SBO
Rc12CC	Rc12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{293} = k_{bcgP} \cdot [Rc12CG] \tag{611}$$

7.294 Reaction r294

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Rc12CG

Reaction equation



Reactant

Table 885: Properties of each reactant.

Id	Name	SBO
Rc12CC	Rc12CC	

Modifier

Table 886: Properties of each modifier.

Id	Name	SBO
Rc12CC	Rc12CC	

Product

Table 887: Properties of each product.

Id	Name	SBO
Rc12CG	Rc12CG	

Kinetic Law

Derived unit contains undeclared units

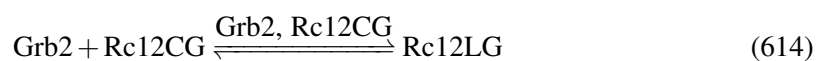
$$v_{294} = k_{ucgM} \cdot [Rc12CC] \quad (613)$$

7.295 Reaction r295

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Rc12CG bind yielding Rc12LG

Reaction equation



Reactants

Table 888: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Rc12CG	Rc12CG	

Modifiers

Table 889: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Rc12CG	Rc12CG	

Product

Table 890: Properties of each product.

Id	Name	SBO
Rc12LG	Rc12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{295} = kbcg \cdot [\text{Grb2}] \cdot [\text{Rc12CG}] \quad (615)$$

7.296 Reaction r296

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Rc12LG dissociates to Grb2 and Rc12CG

Reaction equation



Reactant

Table 891: Properties of each reactant.

Id	Name	SBO
Rc12LG	Rc12LG	

Modifier

Table 892: Properties of each modifier.

Id	Name	SBO
Rc12LG	Rc12LG	

Products

Table 893: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Rc12CG	Rc12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{296} = kucg \cdot [Rc12LG] \quad (617)$$

7.297 Reaction r297

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL10UU bind yielding RcL10CU

Reaction equation



Reactants

Table 894: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL10UU	RcL10UU	

Modifiers

Table 895: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL10UU	RcL10UU	

Product

Table 896: Properties of each product.

Id	Name	SBO
RcL10CU	RcL10CU	

Kinetic Law

Derived unit contains undeclared units

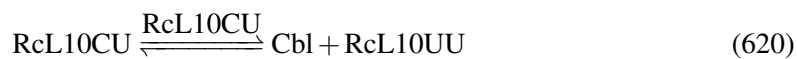
$$v_{297} = kb45 \cdot [Cbl] \cdot [RcL10UU] \quad (619)$$

7.298 Reaction r298

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL10CU dissociates to Cbl and RcL10UU

Reaction equation



Reactant

Table 897: Properties of each reactant.

Id	Name	SBO
RcL10CU	RcL10CU	

Modifier

Table 898: Properties of each modifier.

Id	Name	SBO
RcL10CU	RcL10CU	

Products

Table 899: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RcL10UU	RcL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{298} = k_{u45} \cdot [\text{RcL10CU}] \quad (621)$$

7.299 Reaction r299

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL10UU bind yielding RcL10LU

Reaction equation



Reactants

Table 900: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL10UU	RcL10UU	

Modifiers

Table 901: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL10UU	RcL10UU	

Product

Table 902: Properties of each product.

Id	Name	SBO
RcL10LU	RcL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{299} = kb45 \cdot [CG] \cdot [RcL10UU] \quad (623)$$

7.300 Reaction r300

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL10LU dissociates to CG and RcL10UU

Reaction equation



Reactant

Table 903: Properties of each reactant.

Id	Name	SBO
RcL10LU	RcL10LU	

Modifier

Table 904: Properties of each modifier.

Id	Name	SBO
RcL10LU	RcL10LU	

Products

Table 905: Properties of each product.

Id	Name	SBO
CG	CG	
RcL10UU	RcL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{300} = k_{u45} \cdot [\text{RcL10LU}] \quad (625)$$

7.301 Reaction r301

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL10CU bind yielding RcL10LU

Reaction equation



Reactants

Table 906: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL10CU	RcL10CU	

Modifiers

Table 907: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL10CU	RcL10CU	

Product

Table 908: Properties of each product.

Id	Name	SBO
RcL10LU	RcL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{301} = kbcg \cdot [\text{Grb2}] \cdot [\text{RcL10CU}] \quad (627)$$

7.302 Reaction r302

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL10LU dissociates to Grb2 and RcL10CU

Reaction equation



Reactant

Table 909: Properties of each reactant.

Id	Name	SBO
RcL10LU	RcL10LU	

Modifier

Table 910: Properties of each modifier.

Id	Name	SBO
RcL10LU	RcL10LU	

Products

Table 911: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL10CU	RcL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{302} = kucg \cdot [RcL10LU] \quad (629)$$

7.303 Reaction r303

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL01UU bind yielding RcL01UG

Reaction equation



Reactants

Table 912: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL01UU	RcL01UU	

Modifiers

Table 913: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL01UU	RcL01UU	

Product

Table 914: Properties of each product.

Id	Name	SBO
RcL01UG	RcL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{303} = kb68 \cdot [Grb2] \cdot [RcL01UU] \quad (631)$$

7.304 Reaction r304

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL01UG dissociates to Grb2 and RcL01UU

Reaction equation



Reactant

Table 915: Properties of each reactant.

Id	Name	SBO
RcL01UG	RcL01UG	

Modifier

Table 916: Properties of each modifier.

Id	Name	SBO
RcL01UG	RcL01UG	

Products

Table 917: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL01UU	RcL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{304} = ku68 \cdot [RcL01UG] \quad (633)$$

7.305 Reaction r305

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL01UU bind yielding RcL01UL

Reaction equation



Reactants

Table 918: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL01UU	RcL01UU	

Modifiers

Table 919: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL01UU	RcL01UU	

Product

Table 920: Properties of each product.

Id	Name	SBO
RcL01UL	RcL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{305} = kb68 \cdot [CG] \cdot [RcL01UU] \quad (635)$$

7.306 Reaction r306

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL01UL dissociates to CG and RcL01UU

Reaction equation



Reactant

Table 921: Properties of each reactant.

Id	Name	SBO
RcL01UL	RcL01UL	

Modifier

Table 922: Properties of each modifier.

Id	Name	SBO
RcL01UL	RcL01UL	

Products

Table 923: Properties of each product.

Id	Name	SBO
CG	CG	
RcL01UU	RcL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{306} = ku_{68} \cdot [RcL01UL] \quad (637)$$

7.307 Reaction r307

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL01UG bind yielding RcL01UL

Reaction equation



Reactants

Table 924: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL01UG	RcL01UG	

Modifiers

Table 925: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL01UG	RcL01UG	

Product

Table 926: Properties of each product.

Id	Name	SBO
RcL01UL	RcL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{307} = kbcg \cdot [Cbl] \cdot [RcL01UG] \quad (639)$$

7.308 Reaction r308

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL01UL dissociates to Cbl and RcL01UG

Reaction equation



Reactant

Table 927: Properties of each reactant.

Id	Name	SBO
RcL01UL	RcL01UL	

Modifier

Table 928: Properties of each modifier.

Id	Name	SBO
RcL01UL	RcL01UL	

Products

Table 929: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
RcL01UG	RcL01UG	

Kinetic Law

Derived unit contains undeclared units

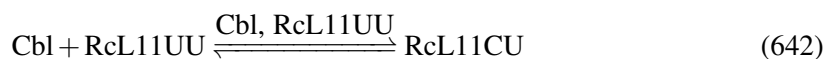
$$v_{308} = kucg \cdot [RcL01UL] \quad (641)$$

7.309 Reaction r309

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL11UU bind yielding RcL11CU

Reaction equation



Reactants

Table 930: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
RcL11UU	RcL11UU	

Modifiers

Table 931: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL11UU	RcL11UU	

Product

Table 932: Properties of each product.

Id	Name	SBO
RcL11CU	RcL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{309} = kb45 \cdot [Cbl] \cdot [RcL11UU] \quad (643)$$

7.310 Reaction r310

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11CU dissociates to Cbl and RcL11UU

Reaction equation



Reactant

Table 933: Properties of each reactant.

Id	Name	SBO
RcL11CU	RcL11CU	

Modifier

Table 934: Properties of each modifier.

Id	Name	SBO
RcL11CU	RcL11CU	

Products

Table 935: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{310} = k_{u45} \cdot [\text{RcL11CU}] \quad (645)$$

7.311 Reaction r311

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL11UU bind yielding RcL11LU

Reaction equation



Reactants

Table 936: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL11UU	RcL11UU	

Modifiers

Table 937: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL11UU	RcL11UU	

Product

Table 938: Properties of each product.

Id	Name	SBO
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{311} = kb45 \cdot [CG] \cdot [RcL11UU] \quad (647)$$

7.312 Reaction r312

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LU dissociates to CG and RcL11UU

Reaction equation



Reactant

Table 939: Properties of each reactant.

Id	Name	SBO
RcL11LU	RcL11LU	

Modifier

Table 940: Properties of each modifier.

Id	Name	SBO
RcL11LU	RcL11LU	

Products

Table 941: Properties of each product.

Id	Name	SBO
CG	CG	
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{312} = k_{u45} \cdot [\text{RcL11LU}] \quad (649)$$

7.313 Reaction r313

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL11UU bind yielding RcL11UG

Reaction equation



Reactants

Table 942: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL11UU	RcL11UU	

Modifiers

Table 943: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL11UU	RcL11UU	

Product

Table 944: Properties of each product.

Id	Name	SBO
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{313} = kb68 \cdot [Grb2] \cdot [RcL11UU] \quad (651)$$

7.314 Reaction r314

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11UG dissociates to Grb2 and RcL11UU

Reaction equation



Reactant

Table 945: Properties of each reactant.

Id	Name	SBO
RcL11UG	RcL11UG	

Modifier

Table 946: Properties of each modifier.

Id	Name	SBO
RcL11UG	RcL11UG	

Products

Table 947: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{314} = k_{u68} \cdot [\text{RcL11UG}] \quad (653)$$

7.315 Reaction r315

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL11UU bind yielding RcL11UL

Reaction equation



Reactants

Table 948: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL11UU	RcL11UU	

Modifiers

Table 949: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL11UU	RcL11UU	

Product

Table 950: Properties of each product.

Id	Name	SBO
RcL11UL	RcL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{315} = kb68 \cdot [CG] \cdot [RcL11UU] \quad (655)$$

7.316 Reaction r316

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11UL dissociates to CG and RcL11UU

Reaction equation



Reactant

Table 951: Properties of each reactant.

Id	Name	SBO
RcL11UL	RcL11UL	

Modifier

Table 952: Properties of each modifier.

Id	Name	SBO
RcL11UL	RcL11UL	

Products

Table 953: Properties of each product.

Id	Name	SBO
CG	CG	
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{316} = ku_{68} \cdot [RcL11UL] \quad (657)$$

7.317 Reaction r317

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL11CU bind yielding RcL11LU

Reaction equation



Reactants

Table 954: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL11CU	RcL11CU	

Modifiers

Table 955: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL11CU	RcL11CU	

Product

Table 956: Properties of each product.

Id	Name	SBO
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{317} = kbcg \cdot [\text{Grb2}] \cdot [\text{RcL11CU}] \quad (659)$$

7.318 Reaction r318

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LU dissociates to Grb2 and RcL11CU

Reaction equation



Reactant

Table 957: Properties of each reactant.

Id	Name	SBO
RcL11LU	RcL11LU	

Modifier

Table 958: Properties of each modifier.

Id	Name	SBO
RcL11LU	RcL11LU	

Products

Table 959: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL11CU	RcL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{318} = kucg \cdot [RcL11LU] \quad (661)$$

7.319 Reaction r319

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL11CU bind yielding RcL11CG

Reaction equation



Reactants

Table 960: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL11CU	RcL11CU	

Modifiers

Table 961: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL11CU	RcL11CU	

Product

Table 962: Properties of each product.

Id	Name	SBO
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{319} = kb68 \cdot [Grb2] \cdot [RcL11CU] \quad (663)$$

7.320 Reaction r320

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11CG dissociates to Grb2 and RcL11CU

Reaction equation



Reactant

Table 963: Properties of each reactant.

Id	Name	SBO
RcL11CG	RcL11CG	

Modifier

Table 964: Properties of each modifier.

Id	Name	SBO
RcL11CG	RcL11CG	

Products

Table 965: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL11CU	RcL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{320} = ku_{68} \cdot [RcL11CG] \quad (665)$$

7.321 Reaction r321

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL11LU bind yielding RcL11LG

Reaction equation



Reactants

Table 966: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL11LU	RcL11LU	

Modifiers

Table 967: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL11LU	RcL11LU	

Product

Table 968: Properties of each product.

Id	Name	SBO
RcL11LG	RcL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{321} = kb68 \cdot [Grb2] \cdot [RcL11LU] \quad (667)$$

7.322 Reaction r322

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LG dissociates to Grb2 and RcL11LU

Reaction equation



Reactant

Table 969: Properties of each reactant.

Id	Name	SBO
RcL11LG	RcL11LG	

Modifier

Table 970: Properties of each modifier.

Id	Name	SBO
RcL11LG	RcL11LG	

Products

Table 971: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{322} = ku_{68} \cdot [RcL11LG] \quad (669)$$

7.323 Reaction r323

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11LU transforms in (singly-bound -> doubly-bound) RcL11CC

Reaction equation



Reactant

Table 972: Properties of each reactant.

Id	Name	SBO
RcL11LU	RcL11LU	

Modifier

Table 973: Properties of each modifier.

Id	Name	SBO
RcL11LU	RcL11LU	

Product

Table 974: Properties of each product.

Id	Name	SBO
RcL11CC	RcL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{323} = kb68P \cdot [RcL11LU] \quad (671)$$

7.324 Reaction r324

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CC tranforms in (doubly-bound -> singly-bound) RcL11LU

Reaction equation



Reactant

Table 975: Properties of each reactant.

Id	Name	SBO
RcL11CC	RcL11CC	

Modifier

Table 976: Properties of each modifier.

Id	Name	SBO
RcL11CC	RcL11CC	

Product

Table 977: Properties of each product.

Id	Name	SBO
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{324} = ku68M \cdot [RcL11CC] \quad (673)$$

7.325 Reaction r325

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL11UG bind yielding RcL11CG

Reaction equation



Reactants

Table 978: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL11UG	RcL11UG	

Modifiers

Table 979: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL11UG	RcL11UG	

Product

Table 980: Properties of each product.

Id	Name	SBO
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{325} = kb45 \cdot [Cbl] \cdot [RcL11UG] \quad (675)$$

7.326 Reaction r326

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11CG dissociates to Cbl and RcL11UG

Reaction equation



Reactant

Table 981: Properties of each reactant.

Id	Name	SBO
RcL11CG	RcL11CG	

Modifier

Table 982: Properties of each modifier.

Id	Name	SBO
RcL11CG	RcL11CG	

Products

Table 983: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{326} = k_{u45} \cdot [\text{RcL11CG}] \quad (677)$$

7.327 Reaction r327

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL11UG bind yielding RcL11LG

Reaction equation



Reactants

Table 984: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL11UG	RcL11UG	

Modifiers

Table 985: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL11UG	RcL11UG	

Product

Table 986: Properties of each product.

Id	Name	SBO
RcL11LG	RcL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{327} = \text{kb45} \cdot [\text{CG}] \cdot [\text{RcL11UG}]$$

(679)

7.328 Reaction r328

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LG dissociates to CG and RcL11UG

Reaction equation



Reactant

Table 987: Properties of each reactant.

Id	Name	SBO
RcL11LG	RcL11LG	

Modifier

Table 988: Properties of each modifier.

Id	Name	SBO
RcL11LG	RcL11LG	

Products

Table 989: Properties of each product.

Id	Name	SBO
CG	CG	
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{328} = k_{u45} \cdot [\text{RcL11LG}] \quad (681)$$

7.329 Reaction r329

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL11UG bind yielding RcL11UL

Reaction equation



Reactants

Table 990: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL11UG	RcL11UG	

Modifiers

Table 991: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL11UG	RcL11UG	

Product

Table 992: Properties of each product.

Id	Name	SBO
RcL11UL	RcL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{329} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{RcL11UG}] \quad (683)$$

7.330 Reaction r330

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11UL dissociates to Cbl and RcL11UG

Reaction equation



Reactant

Table 993: Properties of each reactant.

Id	Name	SBO
RcL11UL	RcL11UL	

Modifier

Table 994: Properties of each modifier.

Id	Name	SBO
RcL11UL	RcL11UL	

Products

Table 995: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{330} = k_{ucg} \cdot [\text{RcL11UL}] \quad (685)$$

7.331 Reaction r331

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UL transforms in (singly-bound -> doubly-bound) RcL11CC

Reaction equation



Reactant

Table 996: Properties of each reactant.

Id	Name	SBO
RcL11UL	RcL11UL	

Modifier

Table 997: Properties of each modifier.

Id	Name	SBO
RcL11UL	RcL11UL	

Product

Table 998: Properties of each product.

Id	Name	SBO
RcL11CC	RcL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{331} = \text{kb45P} \cdot [\text{RcL11UL}] \tag{687}$$

7.332 Reaction r332

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CC tranforms in (doubly-bound -> singly-bound) RcL11UL

Reaction equation



Reactant

Table 999: Properties of each reactant.

Id	Name	SBO
RcL11CC	RcL11CC	

Modifier

Table 1000: Properties of each modifier.

Id	Name	SBO
RcL11CC	RcL11CC	

Product

Table 1001: Properties of each product.

Id	Name	SBO
RcL11UL	RcL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{332} = k_{u45M} \cdot [\text{RcL11CC}] \quad (689)$$

7.333 Reaction r333

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CG transforms in (Cbl bind Grb2 directly) RcL11CC

Reaction equation



Reactant

Table 1002: Properties of each reactant.

Id	Name	SBO
RcL11CG	RcL11CG	

Modifier

Table 1003: Properties of each modifier.

Id	Name	SBO
RcL11CG	RcL11CG	

Product

Table 1004: Properties of each product.

Id	Name	SBO
RcL11CC	RcL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{333} = k_{bcgP} \cdot [RcL11CG] \quad (691)$$

7.334 Reaction r334

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RcL11CG

Reaction equation



Reactant

Table 1005: Properties of each reactant.

Id	Name	SBO
RcL11CC	RcL11CC	

Modifier

Table 1006: Properties of each modifier.

Id	Name	SBO
RcL11CC	RcL11CC	

Product

Table 1007: Properties of each product.

Id	Name	SBO
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{334} = kucgM \cdot [RcL11CC] \quad (693)$$

7.335 Reaction r335

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL11CG bind yielding RcL11LG

Reaction equation



Reactants

Table 1008: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL11CG	RcL11CG	

Modifiers

Table 1009: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL11CG	RcL11CG	

Product

Table 1010: Properties of each product.

Id	Name	SBO
RcL11LG	RcL11LG	

Kinetic Law

Derived unit contains undeclared units

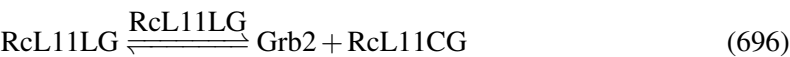
$$v_{335} = kbcg \cdot [Grb2] \cdot [RcL11CG] \tag{695}$$

7.336 Reaction r336

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LG dissociates to Grb2 and RcL11CG

Reaction equation



Reactant

Table 1011: Properties of each reactant.

Id	Name	SBO
RcL11LG	RcL11LG	

Modifier

Table 1012: Properties of each modifier.

Id	Name	SBO
RcL11LG	RcL11LG	

Products

Table 1013: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{336} = k_{ucg} \cdot [RcL11LG] \quad (697)$$

7.337 Reaction r337

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL02UU bind yielding RcL02UG

Reaction equation



Reactants

Table 1014: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL02UU	RcL02UU	

Modifiers

Table 1015: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL02UU	RcL02UU	

Product

Table 1016: Properties of each product.

Id	Name	SBO
RcL02UG	RcL02UG	

Kinetic Law

Derived unit contains undeclared units

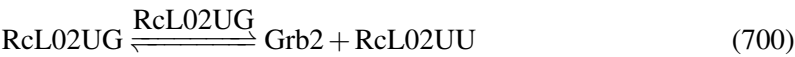
$$v_{337} = 2 \cdot kb68 \cdot [Grb2] \cdot [RcL02UU] \tag{699}$$

7.338 Reaction r338

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL02UG dissociates to Grb2 and RcL02UU

Reaction equation



Reactant

Table 1017: Properties of each reactant.

Id	Name	SBO
RcL02UG	RcL02UG	

Modifier

Table 1018: Properties of each modifier.

Id	Name	SBO
RcL02UG	RcL02UG	

Products

Table 1019: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL02UU	RcL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{338} = k_{u68} \cdot [RcL02UG] \tag{701}$$

7.339 Reaction r339

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL02UU bind yielding RcL02UL

Reaction equation



Reactants

Table 1020: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL02UU	RcL02UU	

Modifiers

Table 1021: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL02UU	RcL02UU	

Product

Table 1022: Properties of each product.

Id	Name	SBO
RcL02UL	RcL02UL	

Kinetic Law

Derived unit contains undeclared units

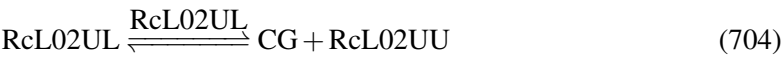
$$v_{339} = 2 \cdot kb68 \cdot [CG] \cdot [RcL02UU] \tag{703}$$

7.340 Reaction r340

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL02UL dissociates to CG and RcL02UU

Reaction equation



Reactant

Table 1023: Properties of each reactant.

Id	Name	SBO
RcL02UL	RcL02UL	

Modifier

Table 1024: Properties of each modifier.

Id	Name	SBO
RcL02UL	RcL02UL	

Products

Table 1025: Properties of each product.

Id	Name	SBO
CG	CG	
RcL02UU	RcL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{340} = ku68 \cdot [RcL02UL]$$

(705)

7.341 Reaction r341

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL02UG bind yielding RcL02UL

Reaction equation



Reactants

Table 1026: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL02UG	RcL02UG	

Modifiers

Table 1027: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL02UG	RcL02UG	

Product

Table 1028: Properties of each product.

Id	Name	SBO
RcL02UL	RcL02UL	

Kinetic Law

Derived unit contains undeclared units

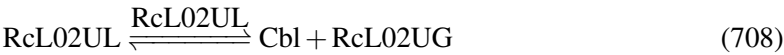
$$v_{341} = kbcg \cdot [Cbl] \cdot [RcL02UG] \tag{707}$$

7.342 Reaction r342

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL02UL dissociates to Cbl and RcL02UG

Reaction equation



Reactant

Table 1029: Properties of each reactant.

Id	Name	SBO
RcL02UL	RcL02UL	

Modifier

Table 1030: Properties of each modifier.

Id	Name	SBO
RcL02UL	RcL02UL	

Products

Table 1031: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
RcL02UG	RcL02UG	

Kinetic Law

Derived unit contains undeclared units

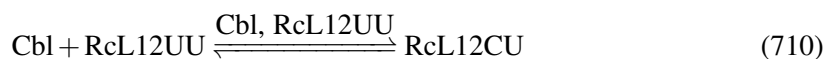
$$v_{342} = kucg \cdot [RcL02UL] \quad (709)$$

7.343 Reaction r343

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL12UU bind yielding RcL12CU

Reaction equation



Reactants

Table 1032: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
RcL12UU	RcL12UU	

Modifiers

Table 1033: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL12UU	RcL12UU	

Product

Table 1034: Properties of each product.

Id	Name	SBO
RcL12CU	RcL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{343} = kb45 \cdot [Cbl] \cdot [RcL12UU]$$

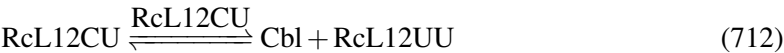
(711)

7.344 Reaction r344

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12CU dissociates to Cbl and RcL12UU

Reaction equation



Reactant

Table 1035: Properties of each reactant.

Id	Name	SBO
RcL12CU	RcL12CU	

Modifier

Table 1036: Properties of each modifier.

Id	Name	SBO
RcL12CU	RcL12CU	

Products

Table 1037: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RcL12UU	RcL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{344} = ku_{45} \cdot [RcL12CU] \tag{713}$$

7.345 Reaction r345

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL12UU bind yielding RcL12LU

Reaction equation



Reactants

Table 1038: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL12UU	RcL12UU	

Modifiers

Table 1039: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL12UU	RcL12UU	

Product

Table 1040: Properties of each product.

Id	Name	SBO
RcL12LU	RcL12LU	

Kinetic Law

Derived unit contains undeclared units

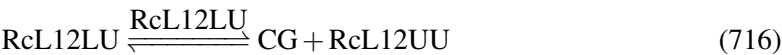
$$v_{345} = kb_{45} \cdot [CG] \cdot [RcL12UU] \tag{715}$$

7.346 Reaction r346

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LU dissociates to CG and RcL12UU

Reaction equation



Reactant

Table 1041: Properties of each reactant.

Id	Name	SBO
RcL12LU	RcL12LU	

Modifier

Table 1042: Properties of each modifier.

Id	Name	SBO
RcL12LU	RcL12LU	

Products

Table 1043: Properties of each product.

Id	Name	SBO
CG	CG	
RcL12UU	RcL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{346} = k_{u45} \cdot [RcL12LU]$$

(717)

7.347 Reaction r347

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL12UU bind yielding RcL12UG

Reaction equation



Reactants

Table 1044: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL12UU	RcL12UU	

Modifiers

Table 1045: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL12UU	RcL12UU	

Product

Table 1046: Properties of each product.

Id	Name	SBO
RcL12UG	RcL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{347} = 2 \cdot kb68 \cdot [Grb2] \cdot [RcL12UU]$$

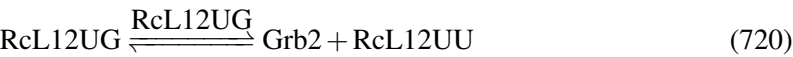
(719)

7.348 Reaction r348

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12UG dissociates to Grb2 and RcL12UU

Reaction equation



Reactant

Table 1047: Properties of each reactant.

Id	Name	SBO
RcL12UG	RcL12UG	

Modifier

Table 1048: Properties of each modifier.

Id	Name	SBO
RcL12UG	RcL12UG	

Products

Table 1049: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL12UU	RcL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{348} = ku_{68} \cdot [RcL12UG] \tag{721}$$

7.349 Reaction r349

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL12UU bind yielding RcL12UL

Reaction equation



Reactants

Table 1050: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL12UU	RcL12UU	

Modifiers

Table 1051: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL12UU	RcL12UU	

Product

Table 1052: Properties of each product.

Id	Name	SBO
RcL12UL	RcL12UL	

Kinetic Law

Derived unit contains undeclared units

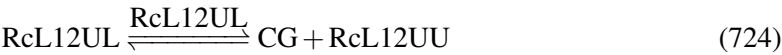
$$v_{349} = 2 \cdot kb68 \cdot [CG] \cdot [RcL12UU] \tag{723}$$

7.350 Reaction r350

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12UL dissociates to CG and RcL12UU

Reaction equation



Reactant

Table 1053: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 1054: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Products

Table 1055: Properties of each product.

Id	Name	SBO
CG	CG	
RcL12UU	RcL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{350} = ku68 \cdot [RcL12UL]$$

(725)

7.351 Reaction r351

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL12CU bind yielding RcL12LU

Reaction equation



Reactants

Table 1056: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL12CU	RcL12CU	

Modifiers

Table 1057: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL12CU	RcL12CU	

Product

Table 1058: Properties of each product.

Id	Name	SBO
RcL12LU	RcL12LU	

Kinetic Law

Derived unit contains undeclared units

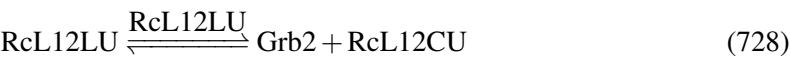
$$v_{351} = kbcg \cdot [Grb2] \cdot [RcL12CU] \tag{727}$$

7.352 Reaction r352

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LU dissociates to Grb2 and RcL12CU

Reaction equation



Reactant

Table 1059: Properties of each reactant.

Id	Name	SBO
RcL12LU	RcL12LU	

Modifier

Table 1060: Properties of each modifier.

Id	Name	SBO
RcL12LU	RcL12LU	

Products

Table 1061: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL12CU	RcL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{352} = kucg \cdot [RcL12LU] \tag{729}$$

7.353 Reaction r353

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL12CU bind yielding RcL12CG

Reaction equation



Reactants

Table 1062: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL12CU	RcL12CU	

Modifiers

Table 1063: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL12CU	RcL12CU	

Product

Table 1064: Properties of each product.

Id	Name	SBO
RcL12CG	RcL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{353} = 2 \cdot kb68 \cdot [Grb2] \cdot [RcL12CU]$$

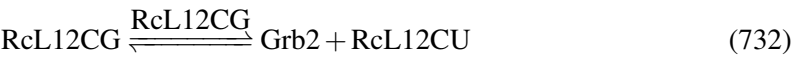
(731)

7.354 Reaction r354

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12CG dissociates to Grb2 and RcL12CU

Reaction equation



Reactant

Table 1065: Properties of each reactant.

Id	Name	SBO
RcL12CG	RcL12CG	

Modifier

Table 1066: Properties of each modifier.

Id	Name	SBO
RcL12CG	RcL12CG	

Products

Table 1067: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL12CU	RcL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{354} = k_{u68} \cdot [RcL12CG] \tag{733}$$

7.355 Reaction r355

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL12LU bind yielding RcL12LG

Reaction equation



Reactants

Table 1068: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL12LU	RcL12LU	

Modifiers

Table 1069: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL12LU	RcL12LU	

Product

Table 1070: Properties of each product.

Id	Name	SBO
RcL12LG	RcL12LG	

Kinetic Law

Derived unit contains undeclared units

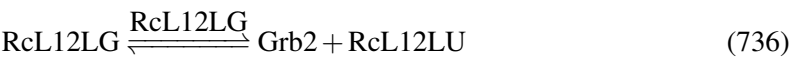
$$v_{355} = 2 \cdot kb68 \cdot [Grb2] \cdot [RcL12LU] \tag{735}$$

7.356 Reaction r356

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LG dissociates to Grb2 and RcL12LU

Reaction equation



Reactant

Table 1071: Properties of each reactant.

Id	Name	SBO
RcL12LG	RcL12LG	

Modifier

Table 1072: Properties of each modifier.

Id	Name	SBO
RcL12LG	RcL12LG	

Products

Table 1073: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL12LU	RcL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{356} = ku_{68} \cdot [RcL12LG] \tag{737}$$

7.357 Reaction r357

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12LU transforms in (singly-bound -> doubly-bound) RcL12CC

Reaction equation



Reactant

Table 1074: Properties of each reactant.

Id	Name	SBO
RcL12LU	RcL12LU	

Modifier

Table 1075: Properties of each modifier.

Id	Name	SBO
RcL12LU	RcL12LU	

Product

Table 1076: Properties of each product.

Id	Name	SBO
RcL12CC	RcL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{357} = 2 \cdot kb68P \cdot [RcL12LU] \quad (739)$$

7.358 Reaction r358

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CC tranforms in (doubly-bound -> singly-bound) RcL12LU

Reaction equation



Reactant

Table 1077: Properties of each reactant.

Id	Name	SBO
RcL12CC	RcL12CC	

Modifier

Table 1078: Properties of each modifier.

Id	Name	SBO
RcL12CC	RcL12CC	

Product

Table 1079: Properties of each product.

Id	Name	SBO
RcL12LU	RcL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{358} = ku68M \cdot [RcL12CC] \quad (741)$$

7.359 Reaction r359

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL12UG bind yielding RcL12CG

Reaction equation



Reactants

Table 1080: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL12UG	RcL12UG	

Modifiers

Table 1081: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL12UG	RcL12UG	

Product

Table 1082: Properties of each product.

Id	Name	SBO
RcL12CG	RcL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{359} = kb45 \cdot [Cbl] \cdot [RcL12UG] \quad (743)$$

7.360 Reaction r360

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12CG dissociates to Cbl and RcL12UG

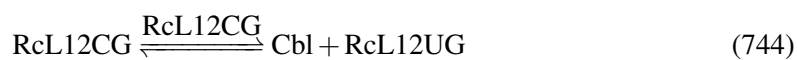
Reaction equation**Reactant**

Table 1083: Properties of each reactant.

Id	Name	SBO
RcL12CG	RcL12CG	

Modifier

Table 1084: Properties of each modifier.

Id	Name	SBO
RcL12CG	RcL12CG	

Products

Table 1085: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
RcL12UG	RcL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{360} = k_{u45} \cdot [\text{RcL12CG}] \quad (745)$$

7.361 Reaction r361

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RcL12UG bind yielding RcL12LG

Reaction equation



Reactants

Table 1086: Properties of each reactant.

Id	Name	SBO
CG	CG	
RcL12UG	RcL12UG	

Modifiers

Table 1087: Properties of each modifier.

Id	Name	SBO
CG	CG	
RcL12UG	RcL12UG	

Product

Table 1088: Properties of each product.

Id	Name	SBO
RcL12LG	RcL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{361} = kb45 \cdot [CG] \cdot [RcL12UG]$$

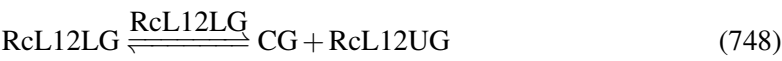
(747)

7.362 Reaction r362

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LG dissociates to CG and RcL12UG

Reaction equation



Reactant

Table 1089: Properties of each reactant.

Id	Name	SBO
RcL12LG	RcL12LG	

Modifier

Table 1090: Properties of each modifier.

Id	Name	SBO
RcL12LG	RcL12LG	

Products

Table 1091: Properties of each product.

Id	Name	SBO
CG	CG	
RcL12UG	RcL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{362} = k_{u45} \cdot [\text{RcL12LG}] \quad (749)$$

7.363 Reaction r363

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RcL12UG bind yielding RcL12UL

Reaction equation



Reactants

Table 1092: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RcL12UG	RcL12UG	

Modifiers

Table 1093: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RcL12UG	RcL12UG	

Product

Table 1094: Properties of each product.

Id	Name	SBO
RcL12UL	RcL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{363} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{RcL12UG}] \quad (751)$$

7.364 Reaction r364

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12UL dissociates to Cbl and RcL12UG

Reaction equation



Reactant

Table 1095: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 1096: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Products

Table 1097: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
RcL12UG	RcL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{364} = k_{ucg} \cdot [\text{RcL12UL}] \quad (753)$$

7.365 Reaction r365

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UL transforms in (singly-bound -> doubly-bound) RcL12CC

Reaction equation



Reactant

Table 1098: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 1099: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Product

Table 1100: Properties of each product.

Id	Name	SBO
RcL12CC	RcL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{365} = \text{kb45P} \cdot [\text{RcL12UL}] \quad (755)$$

7.366 Reaction r366

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CC tranforms in (doubly-bound -> singly-bound) RcL12UL

Reaction equation



Reactant

Table 1101: Properties of each reactant.

Id	Name	SBO
RcL12CC	RcL12CC	

Modifier

Table 1102: Properties of each modifier.

Id	Name	SBO
RcL12CC	RcL12CC	

Product

Table 1103: Properties of each product.

Id	Name	SBO
RcL12UL	RcL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{366} = ku_{45M} \cdot [RcL12CC] \tag{757}$$

7.367 Reaction r367

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CG transforms in (Cbl bind Grb2 directly) RcL12CC

Reaction equation



Reactant

Table 1104: Properties of each reactant.

Id	Name	SBO
RcL12CG	RcL12CG	

Modifier

Table 1105: Properties of each modifier.

Id	Name	SBO
RcL12CG	RcL12CG	

Product

Table 1106: Properties of each product.

Id	Name	SBO
RcL12CC	RcL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{367} = k_{bcgP} \cdot [RcL12CG] \quad (759)$$

7.368 Reaction r368

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RcL12CG

Reaction equation



Reactant

Table 1107: Properties of each reactant.

Id	Name	SBO
RcL12CC	RcL12CC	

Modifier

Table 1108: Properties of each modifier.

Id	Name	SBO
RcL12CC	RcL12CC	

Product

Table 1109: Properties of each product.

Id	Name	SBO
RcL12CG	RcL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{368} = kucgM \cdot [RcL12CC] \quad (761)$$

7.369 Reaction r369

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RcL12CG bind yielding RcL12LG

Reaction equation



Reactants

Table 1110: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RcL12CG	RcL12CG	

Modifiers

Table 1111: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RcL12CG	RcL12CG	

Product

Table 1112: Properties of each product.

Id	Name	SBO
RcL12LG	RcL12LG	

Kinetic Law

Derived unit contains undeclared units

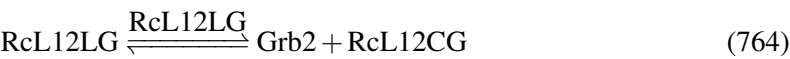
$$v_{369} = kbcg \cdot [Grb2] \cdot [RcL12CG] \tag{763}$$

7.370 Reaction r370

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LG dissociates to Grb2 and RcL12CG

Reaction equation



Reactant

Table 1113: Properties of each reactant.

Id	Name	SBO
RcL12LG	RcL12LG	

Modifier

Table 1114: Properties of each modifier.

Id	Name	SBO
RcL12LG	RcL12LG	

Products

Table 1115: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RcL12CG	RcL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{370} = kucg \cdot [RcL12LG] \quad (765)$$

7.371 Reaction r371

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R10UU bind yielding R10CU

Reaction equation



Reactants

Table 1116: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
R10UU	R10UU	

Modifiers

Table 1117: Properties of each modifier.

Id	Name	SBO
Cb1	Cb1	
R10UU	R10UU	

Product

Table 1118: Properties of each product.

Id	Name	SBO
R10CU	R10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{371} = kb45 \cdot [Cb1] \cdot [R10UU]$$

(767)

7.372 Reaction r372

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R10CU dissociates to Cb1 and R10UU

Reaction equation



Reactant

Table 1119: Properties of each reactant.

Id	Name	SBO
R10CU	R10CU	

Modifier

Table 1120: Properties of each modifier.

Id	Name	SBO
R10CU	R10CU	

Products

Table 1121: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
R10UU	R10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{372} = k_{u45} \cdot [R10CU] \quad (769)$$

7.373 Reaction r373

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R10UU bind yielding R10LU

Reaction equation



Reactants

Table 1122: Properties of each reactant.

Id	Name	SBO
CG	CG	
R10UU	R10UU	

Modifiers

Table 1123: Properties of each modifier.

Id	Name	SBO
CG	CG	
R10UU	R10UU	

Product

Table 1124: Properties of each product.

Id	Name	SBO
R10LU	R10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{373} = kb45 \cdot [CG] \cdot [R10UU] \tag{771}$$

7.374 Reaction r374

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R10LU dissociates to CG and R10UU

Reaction equation



Reactant

Table 1125: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	

Modifier

Table 1126: Properties of each modifier.

Id	Name	SBO
R10LU	R10LU	

Products

Table 1127: Properties of each product.

Id	Name	SBO
CG	CG	
R10UU	R10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{374} = k_{u45} \cdot [R10LU] \quad (773)$$

7.375 Reaction r375

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R10CU bind yielding R10LU

Reaction equation



Reactants

Table 1128: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R10CU	R10CU	

Modifiers

Table 1129: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R10CU	R10CU	

Product

Table 1130: Properties of each product.

Id	Name	SBO
R10LU	R10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{375} = kbcg \cdot [\text{Grb2}] \cdot [\text{R10CU}] \tag{775}$$

7.376 Reaction r376

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R10LU dissociates to Grb2 and R10CU

Reaction equation



Reactant

Table 1131: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	

Modifier

Table 1132: Properties of each modifier.

Id	Name	SBO
R10LU	R10LU	

Products

Table 1133: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R10CU	R10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{376} = kucg \cdot [R10LU] \quad (777)$$

7.377 Reaction r377

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R01UU bind yielding R01UG

Reaction equation



Reactants

Table 1134: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R01UU	R01UU	

Modifiers

Table 1135: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R01UU	R01UU	

Product

Table 1136: Properties of each product.

Id	Name	SBO
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{377} = kb68 \cdot [Grb2] \cdot [R01UU] \tag{779}$$

7.378 Reaction r378

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R01UG dissociates to Grb2 and R01UU

Reaction equation



Reactant

Table 1137: Properties of each reactant.

Id	Name	SBO
R01UG	R01UG	

Modifier

Table 1138: Properties of each modifier.

Id	Name	SBO
R01UG	R01UG	

Products

Table 1139: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{378} = k_{u68} \cdot [R01UG] \quad (781)$$

7.379 Reaction r379

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R01UU bind yielding R01UL

Reaction equation



Reactants

Table 1140: Properties of each reactant.

Id	Name	SBO
CG	CG	
R01UU	R01UU	

Modifiers

Table 1141: Properties of each modifier.

Id	Name	SBO
CG	CG	
R01UU	R01UU	

Product

Table 1142: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{379} = kb68 \cdot [CG] \cdot [R01UU] \tag{783}$$

7.380 Reaction r380

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R01UL dissociates to CG and R01UU

Reaction equation



Reactant

Table 1143: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	

Modifier

Table 1144: Properties of each modifier.

Id	Name	SBO
R01UL	R01UL	

Products

Table 1145: Properties of each product.

Id	Name	SBO
CG	CG	
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{380} = ku_{68} \cdot [R01UL]$$

(785)

7.381 Reaction r381

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R01UG bind yielding R01UL

Reaction equation



Reactants

Table 1146: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
R01UG	R01UG	

Modifiers

Table 1147: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
R01UG	R01UG	

Product

Table 1148: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{381} = kbcg \cdot [Cbl] \cdot [R01UG] \tag{787}$$

7.382 Reaction r382

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R01UL dissociates to Cbl and R01UG

Reaction equation



Reactant

Table 1149: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	

Modifier

Table 1150: Properties of each modifier.

Id	Name	SBO
R01UL	R01UL	

Products

Table 1151: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

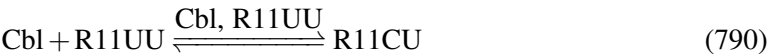
$$v_{382} = kucg \cdot [R01UL] \tag{789}$$

7.383 Reaction r383

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R11UU bind yielding R11CU

Reaction equation



Reactants

Table 1152: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
R11UU	R11UU	

Modifiers

Table 1153: Properties of each modifier.

Id	Name	SBO
Cb1	Cb1	
R11UU	R11UU	

Product

Table 1154: Properties of each product.

Id	Name	SBO
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{383} = kb45 \cdot [Cb1] \cdot [R11UU] \tag{791}$$

7.384 Reaction r384

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11CU dissociates to Cb1 and R11UU

Reaction equation



Reactant

Table 1155: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	

Modifier

Table 1156: Properties of each modifier.

Id	Name	SBO
R11CU	R11CU	

Products

Table 1157: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{384} = ku_{45} \cdot [R11CU] \tag{793}$$

7.385 Reaction r385

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R11UU bind yielding R11LU

Reaction equation



Reactants

Table 1158: Properties of each reactant.

Id	Name	SBO
CG	CG	
R11UU	R11UU	

Modifiers

Table 1159: Properties of each modifier.

Id	Name	SBO
CG	CG	
R11UU	R11UU	

Product

Table 1160: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{385} = k_{b45} \cdot [CG] \cdot [R11UU] \tag{795}$$

7.386 Reaction r386

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11LU dissociates to CG and R11UU

Reaction equation



Reactant

Table 1161: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifier

Table 1162: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	

Products

Table 1163: Properties of each product.

Id	Name	SBO
CG	CG	
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{386} = k_{u45} \cdot [R11LU] \quad (797)$$

7.387 Reaction r387

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R11UU bind yielding R11UG

Reaction equation



Reactants

Table 1164: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R11UU	R11UU	

Modifiers

Table 1165: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R11UU	R11UU	

Product

Table 1166: Properties of each product.

Id	Name	SBO
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{387} = kb68 \cdot [Grb2] \cdot [R11UU] \tag{799}$$

7.388 Reaction r388

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11UG dissociates to Grb2 and R11UU

Reaction equation



Reactant

Table 1167: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	

Modifier

Table 1168: Properties of each modifier.

Id	Name	SBO
R11UG	R11UG	

Products

Table 1169: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{388} = ku_{68} \cdot [R11UG] \tag{801}$$

7.389 Reaction r389

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R11UU bind yielding R11UL

Reaction equation



Reactants

Table 1170: Properties of each reactant.

Id	Name	SBO
CG	CG	
R11UU	R11UU	

Modifiers

Table 1171: Properties of each modifier.

Id	Name	SBO
CG	CG	
R11UU	R11UU	

Product

Table 1172: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{389} = kb68 \cdot [CG] \cdot [R11UU] \tag{803}$$

7.390 Reaction r390

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11UL dissociates to CG and R11UU

Reaction equation



Reactant

Table 1173: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifier

Table 1174: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	

Products

Table 1175: Properties of each product.

Id	Name	SBO
CG	CG	
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{390} = ku_{68} \cdot [R11UL] \tag{805}$$

7.391 Reaction r391

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R11CU bind yielding R11LU

Reaction equation



Reactants

Table 1176: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R11CU	R11CU	

Modifiers

Table 1177: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R11CU	R11CU	

Product

Table 1178: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{391} = kbcg \cdot [\text{Grb2}] \cdot [\text{R11CU}] \tag{807}$$

7.392 Reaction r392

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11LU dissociates to Grb2 and R11CU

Reaction equation



Reactant

Table 1179: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifier

Table 1180: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	

Products

Table 1181: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{392} = kucg \cdot [R11LU] \tag{809}$$

7.393 Reaction r393

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R11CU bind yielding R11CG

Reaction equation



Reactants

Table 1182: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R11CU	R11CU	

Modifiers

Table 1183: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R11CU	R11CU	

Product

Table 1184: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{393} = kb68 \cdot [Grb2] \cdot [R11CU] \tag{811}$$

7.394 Reaction r394

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11CG dissociates to Grb2 and R11CU

Reaction equation



Reactant

Table 1185: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifier

Table 1186: Properties of each modifier.

Id	Name	SBO
R11CG	R11CG	

Products

Table 1187: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{394} = ku_{68} \cdot [R11CG]$$

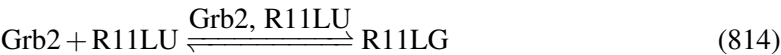
(813)

7.395 Reaction r395

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R11LU bind yielding R11LG

Reaction equation



Reactants

Table 1188: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R11LU	R11LU	

Modifiers

Table 1189: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R11LU	R11LU	

Product

Table 1190: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{395} = kb68 \cdot [Grb2] \cdot [R11LU] \tag{815}$$

7.396 Reaction r396

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11LG dissociates to Grb2 and R11LU

Reaction equation



Reactant

Table 1191: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifier

Table 1192: Properties of each modifier.

Id	Name	SBO
R11LG	R11LG	

Products

Table 1193: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{396} = ku_{68} \cdot [R11LG] \tag{817}$$

7.397 Reaction r397

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11LU transforms in (singly-bound -> doubly-bound) R11CC

Reaction equation



Reactant

Table 1194: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifier

Table 1195: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	

Product

Table 1196: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{397} = kb68P \cdot [R11LU] \tag{819}$$

7.398 Reaction r398

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CC tranforms in (doubly-bound -> singly-bound) R11LU

Reaction equation



Reactant

Table 1197: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifier

Table 1198: Properties of each modifier.

Id	Name	SBO
R11CC	R11CC	

Product

Table 1199: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{398} = ku68M \cdot [R11CC] \tag{821}$$

7.399 Reaction r399

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R11UG bind yielding R11CG

Reaction equation



Reactants

Table 1200: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
R11UG	R11UG	

Modifiers

Table 1201: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
R11UG	R11UG	

Product

Table 1202: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{399} = kb45 \cdot [Cbl] \cdot [R11UG] \quad (823)$$

7.400 Reaction r400

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11CG dissociates to Cbl and R11UG

Reaction equation**Reactant**

Table 1203: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifier

Table 1204: Properties of each modifier.

Id	Name	SBO
R11CG	R11CG	

Products

Table 1205: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{400} = k_{u45} \cdot [R11CG] \quad (825)$$

7.401 Reaction r401

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R11UG bind yielding R11LG

Reaction equation



Reactants

Table 1206: Properties of each reactant.

Id	Name	SBO
CG	CG	
R11UG	R11UG	

Modifiers

Table 1207: Properties of each modifier.

Id	Name	SBO
CG	CG	
R11UG	R11UG	

Product

Table 1208: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{401} = k_{b45} \cdot [CG] \cdot [R11UG]$$

(827)

7.402 Reaction r402

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11LG dissociates to CG and R11UG

Reaction equation



Reactant

Table 1209: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifier

Table 1210: Properties of each modifier.

Id	Name	SBO
R11LG	R11LG	

Products

Table 1211: Properties of each product.

Id	Name	SBO
CG	CG	
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{402} = k_{u45} \cdot [R11LG] \quad (829)$$

7.403 Reaction r403

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R11UG bind yielding R11UL

Reaction equation



Reactants

Table 1212: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
R11UG	R11UG	

Modifiers

Table 1213: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
R11UG	R11UG	

Product

Table 1214: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{403} = k_{bcg} \cdot [Cbl] \cdot [R11UG] \quad (831)$$

7.404 Reaction r404

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11UL dissociates to Cbl and R11UG

Reaction equation



Reactant

Table 1215: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifier

Table 1216: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	

Products

Table 1217: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{404} = kucg \cdot [\text{R11UL}]$$

(833)

7.405 Reaction r405

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UL transforms in (singly-bound -> doubly-bound) R11CC

Reaction equation



Reactant

Table 1218: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifier

Table 1219: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	

Product

Table 1220: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{405} = kb_{45P} \cdot [R11UL]$$

(835)

7.406 Reaction r406

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CC tranforms in (doubly-bound -> singly-bound) R11UL

Reaction equation



Reactant

Table 1221: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifier

Table 1222: Properties of each modifier.

Id	Name	SBO
R11CC	R11CC	

Product

Table 1223: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{406} = k_{u45M} \cdot [R11CC] \tag{837}$$

7.407 Reaction r407

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CG transforms in (Cbl bind Grb2 directly) R11CC

Reaction equation



Reactant

Table 1224: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifier

Table 1225: Properties of each modifier.

Id	Name	SBO
R11CG	R11CG	

Product

Table 1226: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{407} = kbcgP \cdot [R11CG] \tag{839}$$

7.408 Reaction r408

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) R11CG

Reaction equation



Reactant

Table 1227: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifier

Table 1228: Properties of each modifier.

Id	Name	SBO
R11CC	R11CC	

Product

Table 1229: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{408} = kucgM \cdot [R11CC] \tag{841}$$

7.409 Reaction r409

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R11CG bind yielding R11LG

Reaction equation



Reactants

Table 1230: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R11CG	R11CG	

Modifiers

Table 1231: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R11CG	R11CG	

Product

Table 1232: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{409} = kbcg \cdot [Grb2] \cdot [R11CG] \tag{843}$$

7.410 Reaction r410

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R11LG dissociates to Grb2 and R11CG

Reaction equation



Reactant

Table 1233: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifier

Table 1234: Properties of each modifier.

Id	Name	SBO
R11LG	R11LG	

Products

Table 1235: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{410} = kucg \cdot [R11LG] \tag{845}$$

7.411 Reaction r411

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R02UU bind yielding R02UG

Reaction equation



Reactants

Table 1236: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R02UU	R02UU	

Modifiers

Table 1237: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R02UU	R02UU	

Product

Table 1238: Properties of each product.

Id	Name	SBO
R02UG	R02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{411} = 2 \cdot kb68 \cdot [Grb2] \cdot [R02UU] \tag{847}$$

7.412 Reaction r412

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R02UG dissociates to Grb2 and R02UU

Reaction equation



Reactant

Table 1239: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	

Modifier

Table 1240: Properties of each modifier.

Id	Name	SBO
R02UG	R02UG	

Products

Table 1241: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R02UU	R02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{412} = k_{u68} \cdot [R02UG] \quad (849)$$

7.413 Reaction r413

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R02UU bind yielding R02UL

Reaction equation



Reactants

Table 1242: Properties of each reactant.

Id	Name	SBO
CG	CG	
R02UU	R02UU	

Modifiers

Table 1243: Properties of each modifier.

Id	Name	SBO
CG	CG	
R02UU	R02UU	

Product

Table 1244: Properties of each product.

Id	Name	SBO
R02UL	R02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{413} = 2 \cdot kb68 \cdot [CG] \cdot [R02UU] \tag{851}$$

7.414 Reaction r414

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R02UL dissociates to CG and R02UU

Reaction equation



Reactant

Table 1245: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifier

Table 1246: Properties of each modifier.

Id	Name	SBO
R02UL	R02UL	

Products

Table 1247: Properties of each product.

Id	Name	SBO
CG	CG	
R02UU	R02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{414} = ku_{68} \cdot [R02UL]$$

(853)

7.415 Reaction r415

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R02UG bind yielding R02UL

Reaction equation



Reactants

Table 1248: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
R02UG	R02UG	

Modifiers

Table 1249: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
R02UG	R02UG	

Product

Table 1250: Properties of each product.

Id	Name	SBO
R02UL	R02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{415} = kbcg \cdot [Cbl] \cdot [R02UG] \tag{855}$$

7.416 Reaction r416

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R02UL dissociates to Cbl and R02UG

Reaction equation



Reactant

Table 1251: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifier

Table 1252: Properties of each modifier.

Id	Name	SBO
R02UL	R02UL	

Products

Table 1253: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
R02UG	R02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{416} = kucg \cdot [R02UL] \tag{857}$$

7.417 Reaction r417

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R12UU bind yielding R12CU

Reaction equation



Reactants

Table 1254: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
R12UU	R12UU	

Modifiers

Table 1255: Properties of each modifier.

Id	Name	SBO
Cb1	Cb1	
R12UU	R12UU	

Product

Table 1256: Properties of each product.

Id	Name	SBO
R12CU	R12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{417} = kb45 \cdot [Cb1] \cdot [R12UU] \tag{859}$$

7.418 Reaction r418

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12CU dissociates to Cb1 and R12UU

Reaction equation



Reactant

Table 1257: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	

Modifier

Table 1258: Properties of each modifier.

Id	Name	SBO
R12CU	R12CU	

Products

Table 1259: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

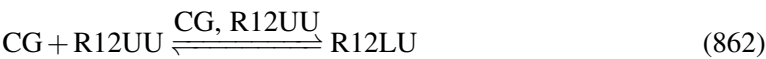
$$v_{418} = ku_{45} \cdot [R12CU] \tag{861}$$

7.419 Reaction r419

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R12UU bind yielding R12LU

Reaction equation



Reactants

Table 1260: Properties of each reactant.

Id	Name	SBO
CG	CG	
R12UU	R12UU	

Modifiers

Table 1261: Properties of each modifier.

Id	Name	SBO
CG	CG	
R12UU	R12UU	

Product

Table 1262: Properties of each product.

Id	Name	SBO
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{419} = kb45 \cdot [CG] \cdot [R12UU] \tag{863}$$

7.420 Reaction r420

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12LU dissociates to CG and R12UU

Reaction equation



Reactant

Table 1263: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifier

Table 1264: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	

Products

Table 1265: Properties of each product.

Id	Name	SBO
CG	CG	
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

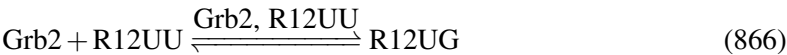
$$v_{420} = ku_{45} \cdot [R12LU] \tag{865}$$

7.421 Reaction r421

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R12UU bind yielding R12UG

Reaction equation



Reactants

Table 1266: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R12UU	R12UU	

Modifiers

Table 1267: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R12UU	R12UU	

Product

Table 1268: Properties of each product.

Id	Name	SBO
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{421} = 2 \cdot kb68 \cdot [Grb2] \cdot [R12UU] \tag{867}$$

7.422 Reaction r422

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12UG dissociates to Grb2 and R12UU

Reaction equation



Reactant

Table 1269: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifier

Table 1270: Properties of each modifier.

Id	Name	SBO
R12UG	R12UG	

Products

Table 1271: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

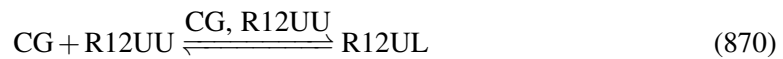
$$v_{422} = k_{u68} \cdot [R12UG] \quad (869)$$

7.423 Reaction r423

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R12UU bind yielding R12UL

Reaction equation



Reactants

Table 1272: Properties of each reactant.

Id	Name	SBO
CG	CG	
R12UU	R12UU	

Modifiers

Table 1273: Properties of each modifier.

Id	Name	SBO
CG	CG	
R12UU	R12UU	

Product

Table 1274: Properties of each product.

Id	Name	SBO
R12UL	R12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{423} = 2 \cdot kb68 \cdot [CG] \cdot [R12UU] \tag{871}$$

7.424 Reaction r424

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12UL dissociates to CG and R12UU

Reaction equation



Reactant

Table 1275: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 1276: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Products

Table 1277: Properties of each product.

Id	Name	SBO
CG	CG	
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{424} = k_{u68} \cdot [R12UL] \quad (873)$$

7.425 Reaction r425

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R12CU bind yielding R12LU

Reaction equation



Reactants

Table 1278: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R12CU	R12CU	

Modifiers

Table 1279: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R12CU	R12CU	

Product

Table 1280: Properties of each product.

Id	Name	SBO
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{425} = kbcg \cdot [Grb2] \cdot [R12CU]$$

(875)

7.426 Reaction r426

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12LU dissociates to Grb2 and R12CU

Reaction equation



Reactant

Table 1281: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifier

Table 1282: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	

Products

Table 1283: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R12CU	R12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{426} = kucg \cdot [R12LU] \tag{877}$$

7.427 Reaction r427

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R12CU bind yielding R12CG

Reaction equation



Reactants

Table 1284: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R12CU	R12CU	

Modifiers

Table 1285: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R12CU	R12CU	

Product

Table 1286: Properties of each product.

Id	Name	SBO
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{427} = 2 \cdot kb68 \cdot [Grb2] \cdot [R12CU] \tag{879}$$

7.428 Reaction r428

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12CG dissociates to Grb2 and R12CU

Reaction equation



Reactant

Table 1287: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifier

Table 1288: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	

Products

Table 1289: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R12CU	R12CU	

Kinetic Law

Derived unit contains undeclared units

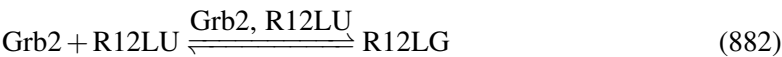
$$v_{428} = ku_{68} \cdot [R12CG] \tag{881}$$

7.429 Reaction r429

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R12LU bind yielding R12LG

Reaction equation



Reactants

Table 1290: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R12LU	R12LU	

Modifiers

Table 1291: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R12LU	R12LU	

Product

Table 1292: Properties of each product.

Id	Name	SBO
R12LG	R12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{429} = 2 \cdot kb68 \cdot [Grb2] \cdot [R12LU] \tag{883}$$

7.430 Reaction r430

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12LG dissociates to Grb2 and R12LU

Reaction equation



Reactant

Table 1293: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifier

Table 1294: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	

Products

Table 1295: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{430} = ku_{68} \cdot [R12LG] \tag{885}$$

7.431 Reaction r431

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LU transforms in (singly-bound -> doubly-bound) R12CC

Reaction equation



Reactant

Table 1296: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifier

Table 1297: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	

Product

Table 1298: Properties of each product.

Id	Name	SBO
R12CC	R12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{431} = 2 \cdot kb68P \cdot [R12LU] \tag{887}$$

7.432 Reaction r432

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CC tranforms in (doubly-bound -> singly-bound) R12LU

Reaction equation



Reactant

Table 1299: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifier

Table 1300: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	

Product

Table 1301: Properties of each product.

Id	Name	SBO
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{432} = k_{u68M} \cdot [R12CC] \tag{889}$$

7.433 Reaction r433

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R12UG bind yielding R12CG

Reaction equation



Reactants

Table 1302: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
R12UG	R12UG	

Modifiers

Table 1303: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
R12UG	R12UG	

Product

Table 1304: Properties of each product.

Id	Name	SBO
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{433} = kb45 \cdot [Cbl] \cdot [R12UG] \quad (891)$$

7.434 Reaction r434

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12CG dissociates to Cbl and R12UG

Reaction equation



Reactant

Table 1305: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifier

Table 1306: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	

Products

Table 1307: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{434} = k_{u45} \cdot [R12CG] \quad (893)$$

7.435 Reaction r435

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and R12UG bind yielding R12LG

Reaction equation



Reactants

Table 1308: Properties of each reactant.

Id	Name	SBO
CG	CG	
R12UG	R12UG	

Modifiers

Table 1309: Properties of each modifier.

Id	Name	SBO
CG	CG	
R12UG	R12UG	

Product

Table 1310: Properties of each product.

Id	Name	SBO
R12LG	R12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{435} = k_{b45} \cdot [CG] \cdot [R12UG]$$

(895)

7.436 Reaction r436

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12LG dissociates to CG and R12UG

Reaction equation



Reactant

Table 1311: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifier

Table 1312: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	

Products

Table 1313: Properties of each product.

Id	Name	SBO
CG	CG	
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{436} = k_{u45} \cdot [R12LG] \quad (897)$$

7.437 Reaction r437

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and R12UG bind yielding R12UL

Reaction equation



Reactants

Table 1314: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
R12UG	R12UG	

Modifiers

Table 1315: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
R12UG	R12UG	

Product

Table 1316: Properties of each product.

Id	Name	SBO
R12UL	R12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{437} = k_{bcg} \cdot [Cbl] \cdot [R12UG] \quad (899)$$

7.438 Reaction r438

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12UL dissociates to Cbl and R12UG

Reaction equation



Reactant

Table 1317: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 1318: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Products

Table 1319: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{438} = k_{ucg} \cdot [\text{R12UL}] \quad (901)$$

7.439 Reaction r439

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UL transforms in (singly-bound -> doubly-bound) R12CC

Reaction equation



Reactant

Table 1320: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 1321: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Product

Table 1322: Properties of each product.

Id	Name	SBO
R12CC	R12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{439} = \text{kb45P} \cdot [\text{R12UL}]$$

(903)

7.440 Reaction [r440](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CC tranforms in (doubly-bound -> singly-bound) R12UL

Reaction equation



Reactant

Table 1323: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifier

Table 1324: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	

Product

Table 1325: Properties of each product.

Id	Name	SBO
R12UL	R12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{440} = k_{u45M} \cdot [R12CC] \tag{905}$$

7.441 Reaction [r441](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CG transforms in (Cbl bind Grb2 directly) R12CC

Reaction equation



Reactant

Table 1326: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifier

Table 1327: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	

Product

Table 1328: Properties of each product.

Id	Name	SBO
R12CC	R12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{441} = kbcgP \cdot [R12CG] \tag{907}$$

7.442 Reaction [r442](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) R12CG

Reaction equation



Reactant

Table 1329: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifier

Table 1330: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	

Product

Table 1331: Properties of each product.

Id	Name	SBO
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

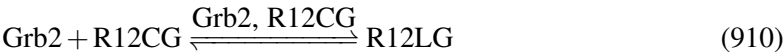
$$v_{442} = kucgM \cdot [R12CC] \tag{909}$$

7.443 Reaction r443

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and R12CG bind yielding R12LG

Reaction equation



Reactants

Table 1332: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
R12CG	R12CG	

Modifiers

Table 1333: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
R12CG	R12CG	

Product

Table 1334: Properties of each product.

Id	Name	SBO
R12LG	R12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{443} = kbcg \cdot [Grb2] \cdot [R12CG] \tag{911}$$

7.444 Reaction r444

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name R12LG dissociates to Grb2 and R12CG

Reaction equation



Reactant

Table 1335: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifier

Table 1336: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	

Products

Table 1337: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{444} = kucg \cdot [R12LG] \quad (913)$$

7.445 Reaction r445

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL10UU bind yielding RL10CU

Reaction equation



Reactants

Table 1338: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL10UU	RL10UU	

Modifiers

Table 1339: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL10UU	RL10UU	

Product

Table 1340: Properties of each product.

Id	Name	SBO
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{445} = kb_{45} \cdot [Cbl] \cdot [RL10UU] \tag{915}$$

7.446 Reaction r446

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL10CU dissociates to Cbl and RL10UU

Reaction equation



Reactant

Table 1341: Properties of each reactant.

Id	Name	SBO
RL10CU	RL10CU	

Modifier

Table 1342: Properties of each modifier.

Id	Name	SBO
RL10CU	RL10CU	

Products

Table 1343: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{446} = ku_{45} \cdot [RL10CU] \tag{917}$$

7.447 Reaction r447

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL10UU bind yielding RL10LU

Reaction equation



Reactants

Table 1344: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL10UU	RL10UU	

Modifiers

Table 1345: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL10UU	RL10UU	

Product

Table 1346: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{447} = kb_{45} \cdot [CG] \cdot [RL10UU] \tag{919}$$

7.448 Reaction ~~r448~~

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL10LU dissociates to CG and RL10UU

Reaction equation



Reactant

Table 1347: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifier

Table 1348: Properties of each modifier.

Id	Name	SBO
RL10LU	RL10LU	

Products

Table 1349: Properties of each product.

Id	Name	SBO
CG	CG	
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{448} = ku_{45} \cdot [RL10LU] \tag{921}$$

7.449 Reaction r449

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL10CU bind yielding RL10LU

Reaction equation



Reactants

Table 1350: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL10CU	RL10CU	

Modifiers

Table 1351: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL10CU	RL10CU	

Product

Table 1352: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{449} = kbcg \cdot [Grb2] \cdot [RL10CU] \tag{923}$$

7.450 Reaction r450

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL10LU dissociates to Grb2 and RL10CU

Reaction equation



Reactant

Table 1353: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifier

Table 1354: Properties of each modifier.

Id	Name	SBO
RL10LU	RL10LU	

Products

Table 1355: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{450} = kucg \cdot [RL10LU] \tag{925}$$

7.451 Reaction r451

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL01UU bind yielding RL01UG

Reaction equation



Reactants

Table 1356: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL01UU	RL01UU	

Modifiers

Table 1357: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL01UU	RL01UU	

Product

Table 1358: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{451} = kb68 \cdot [Grb2] \cdot [RL01UU] \tag{927}$$

7.452 Reaction r452

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL01UG dissociates to Grb2 and RL01UU

Reaction equation



Reactant

Table 1359: Properties of each reactant.

Id	Name	SBO
RL01UG	RL01UG	

Modifier

Table 1360: Properties of each modifier.

Id	Name	SBO
RL01UG	RL01UG	

Products

Table 1361: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{452} = ku_{68} \cdot [RL01UG] \tag{929}$$

7.453 Reaction r453

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL01UU bind yielding RL01UL

Reaction equation



Reactants

Table 1362: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL01UU	RL01UU	

Modifiers

Table 1363: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL01UU	RL01UU	

Product

Table 1364: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{453} = kb68 \cdot [CG] \cdot [RL01UU] \tag{931}$$

7.454 Reaction r454

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL01UL dissociates to CG and RL01UU

Reaction equation



Reactant

Table 1365: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifier

Table 1366: Properties of each modifier.

Id	Name	SBO
RL01UL	RL01UL	

Products

Table 1367: Properties of each product.

Id	Name	SBO
CG	CG	
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{454} = ku68 \cdot [RL01UL] \tag{933}$$

7.455 Reaction r455

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL01UG bind yielding RL01UL

Reaction equation



Reactants

Table 1368: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL01UG	RL01UG	

Modifiers

Table 1369: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL01UG	RL01UG	

Product

Table 1370: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{455} = kbcg \cdot [Cbl] \cdot [RL01UG] \tag{935}$$

7.456 Reaction r456

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL01UL dissociates to Cbl and RL01UG

Reaction equation



Reactant

Table 1371: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifier

Table 1372: Properties of each modifier.

Id	Name	SBO
RL01UL	RL01UL	

Products

Table 1373: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{456} = kucg \cdot [RL01UL] \tag{937}$$

7.457 Reaction r457

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL11UU bind yielding RL11CU

Reaction equation



Reactants

Table 1374: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL11UU	RL11UU	

Modifiers

Table 1375: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL11UU	RL11UU	

Product

Table 1376: Properties of each product.

Id	Name	SBO
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{457} = kb_{45} \cdot [Cbl] \cdot [RL11UU] \tag{939}$$

7.458 Reaction r458

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11CU dissociates to Cbl and RL11UU

Reaction equation



Reactant

Table 1377: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifier

Table 1378: Properties of each modifier.

Id	Name	SBO
RL11CU	RL11CU	

Products

Table 1379: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{458} = k_{u45} \cdot [RL11CU]$$

(941)

7.459 Reaction r459

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL11UU bind yielding RL11LU

Reaction equation



Reactants

Table 1380: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL11UU	RL11UU	

Modifiers

Table 1381: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL11UU	RL11UU	

Product

Table 1382: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{459} = kb_{45} \cdot [CG] \cdot [RL11UU] \tag{943}$$

7.460 Reaction r460

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LU dissociates to CG and RL11UU

Reaction equation



Reactant

Table 1383: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 1384: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Products

Table 1385: Properties of each product.

Id	Name	SBO
CG	CG	
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

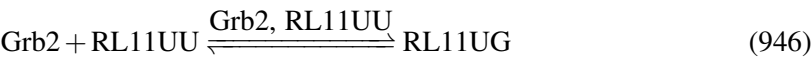
$$v_{460} = k_{u45} \cdot [RL11LU] \tag{945}$$

7.461 Reaction r461

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL11UU bind yielding RL11UG

Reaction equation



Reactants

Table 1386: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL11UU	RL11UU	

Modifiers

Table 1387: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL11UU	RL11UU	

Product

Table 1388: Properties of each product.

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{461} = kb68 \cdot [Grb2] \cdot [RL11UU] \tag{947}$$

7.462 Reaction r462

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11UG dissociates to Grb2 and RL11UU

Reaction equation



Reactant

Table 1389: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifier

Table 1390: Properties of each modifier.

Id	Name	SBO
RL11UG	RL11UG	

Products

Table 1391: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{462} = ku_{68} \cdot [RL11UG] \tag{949}$$

7.463 Reaction r463

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL11UU bind yielding RL11UL

Reaction equation



Reactants

Table 1392: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL11UU	RL11UU	

Modifiers

Table 1393: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL11UU	RL11UU	

Product

Table 1394: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{463} = kb68 \cdot [CG] \cdot [RL11UU] \tag{951}$$

7.464 Reaction r464

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11UL dissociates to CG and RL11UU

Reaction equation



Reactant

Table 1395: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 1396: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Products

Table 1397: Properties of each product.

Id	Name	SBO
CG	CG	
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{464} = ku_{68} \cdot [RL11UL] \tag{953}$$

7.465 Reaction r465

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL11CU bind yielding RL11LU

Reaction equation



Reactants

Table 1398: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL11CU	RL11CU	

Modifiers

Table 1399: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL11CU	RL11CU	

Product

Table 1400: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

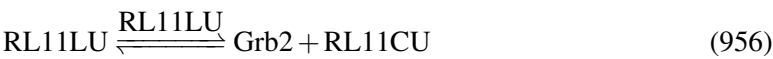
$$v_{465} = kbcg \cdot [Grb2] \cdot [RL11CU] \tag{955}$$

7.466 Reaction [r466](#)

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LU dissociates to Grb2 and RL11CU

Reaction equation



Reactant

Table 1401: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 1402: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Products

Table 1403: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{466} = kucg \cdot [RL11LU] \tag{957}$$

7.467 Reaction r467

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL11CU bind yielding RL11CG

Reaction equation



Reactants

Table 1404: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL11CU	RL11CU	

Modifiers

Table 1405: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL11CU	RL11CU	

Product

Table 1406: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

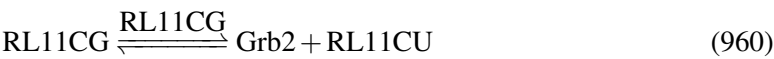
$$v_{467} = kb68 \cdot [Grb2] \cdot [RL11CU] \tag{959}$$

7.468 Reaction r468

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11CG dissociates to Grb2 and RL11CU

Reaction equation



Reactant

Table 1407: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifier

Table 1408: Properties of each modifier.

Id	Name	SBO
RL11CG	RL11CG	

Products

Table 1409: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{468} = ku_{68} \cdot [RL11CG]$$

(961)

7.469 Reaction r469

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL11LU bind yielding RL11LG

Reaction equation



Reactants

Table 1410: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL11LU	RL11LU	

Modifiers

Table 1411: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL11LU	RL11LU	

Product

Table 1412: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{469} = kb68 \cdot [Grb2] \cdot [RL11LU]$$

(963)

7.470 Reaction r470

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LG dissociates to Grb2 and RL11LU

Reaction equation



Reactant

Table 1413: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifier

Table 1414: Properties of each modifier.

Id	Name	SBO
RL11LG	RL11LG	

Products

Table 1415: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{470} = ku68 \cdot [RL11LG] \tag{965}$$

7.471 Reaction r471

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11LU transforms in (singly-bound -> doubly-bound) RL11CC

Reaction equation



Reactant

Table 1416: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 1417: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Product

Table 1418: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{471} = kb68P \cdot [RL11LU] \tag{967}$$

7.472 Reaction [r472](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CC tranforms in (doubly-bound -> singly-bound) RL11LU

Reaction equation



Reactant

Table 1419: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifier

Table 1420: Properties of each modifier.

Id	Name	SBO
RL11CC	RL11CC	

Product

Table 1421: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{472} = k_{u68M} \cdot [\text{RL11CC}] \quad (969)$$

7.473 Reaction r_{473}

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL11UG bind yielding RL11CG

Reaction equation



Reactants

Table 1422: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL11UG	RL11UG	

Modifiers

Table 1423: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL11UG	RL11UG	

Product

Table 1424: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{473} = kb45 \cdot [Cbl] \cdot [RL11UG] \quad (971)$$

7.474 Reaction r474

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11CG dissociates to Cbl and RL11UG

Reaction equation**Reactant**

Table 1425: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifier

Table 1426: Properties of each modifier.

Id	Name	SBO
RL11CG	RL11CG	

Products

Table 1427: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{474} = k_{u45} \cdot [\text{RL11CG}] \quad (973)$$

7.475 Reaction r_{475}

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL11UG bind yielding RL11LG

Reaction equation



Reactants

Table 1428: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL11UG	RL11UG	

Modifiers

Table 1429: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL11UG	RL11UG	

Product

Table 1430: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{475} = k_{b45} \cdot [CG] \cdot [RL11UG]$$

(975)

7.476 Reaction r476

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LG dissociates to CG and RL11UG

Reaction equation



Reactant

Table 1431: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifier

Table 1432: Properties of each modifier.

Id	Name	SBO
RL11LG	RL11LG	

Products

Table 1433: Properties of each product.

Id	Name	SBO
CG	CG	
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{476} = k_{u45} \cdot [\text{RL11LG}] \quad (977)$$

7.477 Reaction r_{477}

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL11UG bind yielding RL11UL

Reaction equation



Reactants

Table 1434: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL11UG	RL11UG	

Modifiers

Table 1435: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL11UG	RL11UG	

Product

Table 1436: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{477} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{RL11UG}] \quad (979)$$

7.478 Reaction r478

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11UL dissociates to Cbl and RL11UG

Reaction equation



Reactant

Table 1437: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 1438: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Products

Table 1439: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{478} = kucg \cdot [\text{RL11UL}]$$

(981)

7.479 Reaction r479

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UL transforms in (singly-bound -> doubly-bound) RL11CC

Reaction equation



Reactant

Table 1440: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 1441: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Product

Table 1442: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$v_{479} = \text{kb45P} \cdot [\text{RL11UL}]$

(983)

7.480 Reaction r480

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CC tranforms in (doubly-bound -> singly-bound) RL11UL

Reaction equation



Reactant

Table 1443: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifier

Table 1444: Properties of each modifier.

Id	Name	SBO
RL11CC	RL11CC	

Product

Table 1445: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{480} = ku_{45M} \cdot [RL11CC] \tag{985}$$

7.481 Reaction r481

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CG transforms in (Cbl bind Grb2 directly) RL11CC

Reaction equation



Reactant

Table 1446: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifier

Table 1447: Properties of each modifier.

Id	Name	SBO
RL11CG	RL11CG	

Product

Table 1448: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{481} = kbcgP \cdot [RL11CG] \tag{987}$$

7.482 Reaction r482

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RL11CG

Reaction equation



Reactant

Table 1449: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifier

Table 1450: Properties of each modifier.

Id	Name	SBO
RL11CC	RL11CC	

Product

Table 1451: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

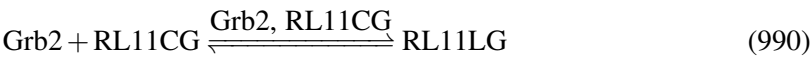
$$v_{482} = kucgM \cdot [RL11CC] \tag{989}$$

7.483 Reaction r483

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL11CG bind yielding RL11LG

Reaction equation



Reactants

Table 1452: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL11CG	RL11CG	

Modifiers

Table 1453: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL11CG	RL11CG	

Product

Table 1454: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{483} = kbcg \cdot [Grb2] \cdot [RL11CG] \tag{991}$$

7.484 Reaction r484

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LG dissociates to Grb2 and RL11CG

Reaction equation



Reactant

Table 1455: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifier

Table 1456: Properties of each modifier.

Id	Name	SBO
RL11LG	RL11LG	

Products

Table 1457: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{484} = kucg \cdot [RL11LG] \tag{993}$$

7.485 Reaction r485

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL02UU bind yielding RL02UG

Reaction equation



Reactants

Table 1458: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL02UU	RL02UU	

Modifiers

Table 1459: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL02UU	RL02UU	

Product

Table 1460: Properties of each product.

Id	Name	SBO
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{485} = 2 \cdot kb68 \cdot [Grb2] \cdot [RL02UU] \tag{995}$$

7.486 Reaction r486

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL02UG dissociates to Grb2 and RL02UU

Reaction equation



Reactant

Table 1461: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifier

Table 1462: Properties of each modifier.

Id	Name	SBO
RL02UG	RL02UG	

Products

Table 1463: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{486} = ku_{68} \cdot [RL02UG]$$

(997)

7.487 Reaction r487

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL02UU bind yielding RL02UL

Reaction equation



Reactants

Table 1464: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL02UU	RL02UU	

Modifiers

Table 1465: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL02UU	RL02UU	

Product

Table 1466: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{487} = 2 \cdot kb68 \cdot [CG] \cdot [RL02UU] \tag{999}$$

7.488 Reaction r488

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL02UL dissociates to CG and RL02UU

Reaction equation



Reactant

Table 1467: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifier

Table 1468: Properties of each modifier.

Id	Name	SBO
RL02UL	RL02UL	

Products

Table 1469: Properties of each product.

Id	Name	SBO
CG	CG	
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{488} = ku_{68} \cdot [RL02UL] \tag{1001}$$

7.489 Reaction r489

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL02UG bind yielding RL02UL

Reaction equation



Reactants

Table 1470: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL02UG	RL02UG	

Modifiers

Table 1471: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL02UG	RL02UG	

Product

Table 1472: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{489} = kbcg \cdot [Cbl] \cdot [RL02UG]$$

(1003)

7.490 Reaction r490

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL02UL dissociates to Cbl and RL02UG

Reaction equation



Reactant

Table 1473: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifier

Table 1474: Properties of each modifier.

Id	Name	SBO
RL02UL	RL02UL	

Products

Table 1475: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{490} = kucg \cdot [RL02UL] \tag{1005}$$

7.491 Reaction r491

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cb1 and RL12UU bind yielding RL12CU

Reaction equation



Reactants

Table 1476: Properties of each reactant.

Id	Name	SBO
Cb1	Cb1	
RL12UU	RL12UU	

Modifiers

Table 1477: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL12UU	RL12UU	

Product

Table 1478: Properties of each product.

Id	Name	SBO
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{491} = kb_{45} \cdot [Cbl] \cdot [RL12UU] \tag{1007}$$

7.492 Reaction r492

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12CU dissociates to Cbl and RL12UU

Reaction equation



Reactant

Table 1479: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifier

Table 1480: Properties of each modifier.

Id	Name	SBO
RL12CU	RL12CU	

Products

Table 1481: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{492} = ku_{45} \cdot [RL12CU] \tag{1009}$$

7.493 Reaction r493

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL12UU bind yielding RL12LU

Reaction equation



Reactants

Table 1482: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL12UU	RL12UU	

Modifiers

Table 1483: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL12UU	RL12UU	

Product

Table 1484: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{493} = kb_{45} \cdot [CG] \cdot [RL12UU]$$

(1011)

7.494 Reaction [r494](#)

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LU dissociates to CG and RL12UU

Reaction equation



Reactant

Table 1485: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 1486: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Products

Table 1487: Properties of each product.

Id	Name	SBO
CG	CG	
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{494} = k_{u45} \cdot [RL12LU]$$

(1013)

7.495 Reaction r495

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL12UU bind yielding RL12UG

Reaction equation



Reactants

Table 1488: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL12UU	RL12UU	

Modifiers

Table 1489: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL12UU	RL12UU	

Product

Table 1490: Properties of each product.

Id	Name	SBO
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

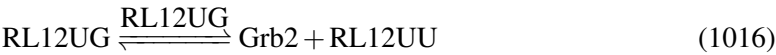
$$v_{495} = 2 \cdot kb68 \cdot [Grb2] \cdot [RL12UU] \tag{1015}$$

7.496 Reaction r496

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12UG dissociates to Grb2 and RL12UU

Reaction equation



Reactant

Table 1491: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifier

Table 1492: Properties of each modifier.

Id	Name	SBO
RL12UG	RL12UG	

Products

Table 1493: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{496} = ku_{68} \cdot [RL12UG]$$

(1017)

7.497 Reaction r497

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL12UU bind yielding RL12UL

Reaction equation



Reactants

Table 1494: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL12UU	RL12UU	

Modifiers

Table 1495: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL12UU	RL12UU	

Product

Table 1496: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{497} = 2 \cdot kb68 \cdot [CG] \cdot [RL12UU]$$

(1019)

7.498 Reaction r498

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12UL dissociates to CG and RL12UU

Reaction equation



Reactant

Table 1497: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 1498: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Products

Table 1499: Properties of each product.

Id	Name	SBO
CG	CG	
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

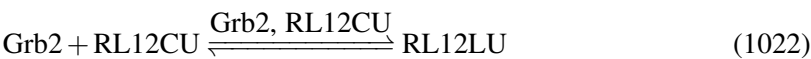
$$v_{498} = ku_{68} \cdot [RL12UL] \tag{1021}$$

7.499 Reaction r499

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL12CU bind yielding RL12LU

Reaction equation



Reactants

Table 1500: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL12CU	RL12CU	

Modifiers

Table 1501: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL12CU	RL12CU	

Product

Table 1502: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{499} = kbcg \cdot [Grb2] \cdot [RL12CU]$$

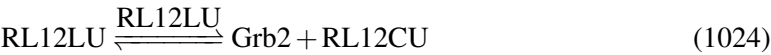
(1023)

7.500 Reaction r500

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LU dissociates to Grb2 and RL12CU

Reaction equation



Reactant

Table 1503: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 1504: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Products

Table 1505: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

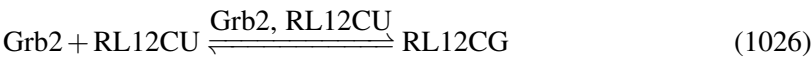
$$v_{500} = kucg \cdot [RL12LU] \tag{1025}$$

7.501 Reaction r501

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL12CU bind yielding RL12CG

Reaction equation



Reactants

Table 1506: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL12CU	RL12CU	

Modifiers

Table 1507: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL12CU	RL12CU	

Product

Table 1508: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

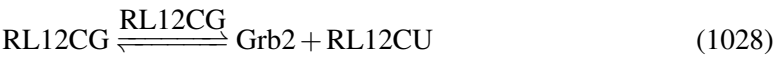
$$v_{501} = 2 \cdot kb68 \cdot [Grb2] \cdot [RL12CU] \tag{1027}$$

7.502 Reaction r502

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12CG dissociates to Grb2 and RL12CU

Reaction equation



Reactant

Table 1509: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 1510: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Products

Table 1511: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

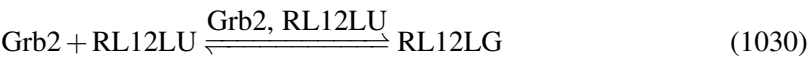
$$v_{502} = ku68 \cdot [RL12CG] \tag{1029}$$

7.503 Reaction r503

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL12LU bind yielding RL12LG

Reaction equation



Reactants

Table 1512: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL12LU	RL12LU	

Modifiers

Table 1513: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL12LU	RL12LU	

Product

Table 1514: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

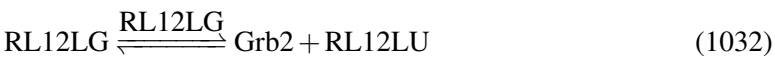
$$v_{503} = 2 \cdot kb68 \cdot [Grb2] \cdot [RL12LU] \tag{1031}$$

7.504 Reaction r504

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LG dissociates to Grb2 and RL12LU

Reaction equation



Reactant

Table 1515: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 1516: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Products

Table 1517: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{504} = ku68 \cdot [RL12LG] \tag{1033}$$

7.505 Reaction r505

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LU transforms in (singly-bound -> doubly-bound) RL12CC

Reaction equation



Reactant

Table 1518: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 1519: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Product

Table 1520: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{505} = 2 \cdot kb68P \cdot [RL12LU] \tag{1035}$$

7.506 Reaction r506

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CC tranforms in (doubly-bound -> singly-bound) RL12LU

Reaction equation



Reactant

Table 1521: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 1522: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Product

Table 1523: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{506} = k_{u68M} \cdot [RL12CC] \tag{1037}$$

7.507 Reaction r507

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL12UG bind yielding RL12CG

Reaction equation



Reactants

Table 1524: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL12UG	RL12UG	

Modifiers

Table 1525: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL12UG	RL12UG	

Product

Table 1526: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{507} = kb45 \cdot [Cbl] \cdot [RL12UG] \quad (1039)$$

7.508 Reaction r508

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12CG dissociates to Cbl and RL12UG

Reaction equation**Reactant**

Table 1527: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 1528: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Products

Table 1529: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{508} = k_{u45} \cdot [\text{RL12CG}] \quad (1041)$$

7.509 Reaction r509

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and RL12UG bind yielding RL12LG

Reaction equation



Reactants

Table 1530: Properties of each reactant.

Id	Name	SBO
CG	CG	
RL12UG	RL12UG	

Modifiers

Table 1531: Properties of each modifier.

Id	Name	SBO
CG	CG	
RL12UG	RL12UG	

Product

Table 1532: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{509} = k_{b45} \cdot [CG] \cdot [RL12UG]$$

(1043)

7.510 Reaction r510

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LG dissociates to CG and RL12UG

Reaction equation



Reactant

Table 1533: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 1534: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Products

Table 1535: Properties of each product.

Id	Name	SBO
CG	CG	
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{510} = k_{u45} \cdot [\text{RL12LG}] \quad (1045)$$

7.511 Reaction r511

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and RL12UG bind yielding RL12UL

Reaction equation



Reactants

Table 1536: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
RL12UG	RL12UG	

Modifiers

Table 1537: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
RL12UG	RL12UG	

Product

Table 1538: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{511} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{RL12UG}] \quad (1047)$$

7.512 Reaction r512

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12UL dissociates to Cbl and RL12UG

Reaction equation



Reactant

Table 1539: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 1540: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Products

Table 1541: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{512} = kucg \cdot [\text{RL12UL}]$$

(1049)

7.513 Reaction r513

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UL transforms in (singly-bound -> doubly-bound) RL12CC

Reaction equation



Reactant

Table 1542: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 1543: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Product

Table 1544: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$v_{513} = \text{kb45P} \cdot [\text{RL12UL}]$

(1051)

7.514 Reaction r514

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CC tranforms in (doubly-bound -> singly-bound) RL12UL

Reaction equation



Reactant

Table 1545: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 1546: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Product

Table 1547: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{514} = ku_{45M} \cdot [RL12CC] \tag{1053}$$

7.515 Reaction r515

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CG transforms in (Cbl bind Grb2 directly) RL12CC

Reaction equation



Reactant

Table 1548: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 1549: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Product

Table 1550: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{515} = kbcgP \cdot [RL12CG] \tag{1055}$$

7.516 Reaction [r516](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) RL12CG

Reaction equation



Reactant

Table 1551: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 1552: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Product

Table 1553: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

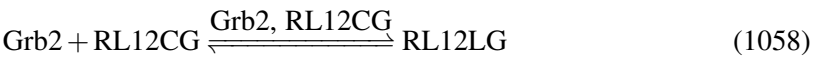
$$v_{516} = kucgM \cdot [RL12CC] \tag{1057}$$

7.517 Reaction r517

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and RL12CG bind yielding RL12LG

Reaction equation



Reactants

Table 1554: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
RL12CG	RL12CG	

Modifiers

Table 1555: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
RL12CG	RL12CG	

Product

Table 1556: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{517} = kbcg \cdot [Grb2] \cdot [RL12CG]$$

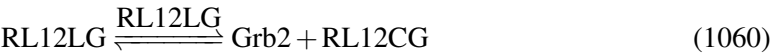
(1059)

7.518 Reaction r518

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LG dissociates to Grb2 and RL12CG

Reaction equation



Reactant

Table 1557: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 1558: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Products

Table 1559: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{518} = kucg \cdot [RL12LG] \quad (1061)$$

7.519 Reaction r519

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di10UU bind yielding Di10CU

Reaction equation



Reactants

Table 1560: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di10UU	Di10UU	

Modifiers

Table 1561: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
Di10UU	Di10UU	

Product

Table 1562: Properties of each product.

Id	Name	SBO
Di10CU	Di10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{519} = kb45 \cdot [Cb1] \cdot [Di10UU]$$

(1063)

7.520 Reaction r520

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di10CU dissociates to Cbl and Di10UU

Reaction equation



Reactant

Table 1563: Properties of each reactant.

Id	Name	SBO
Di10CU	Di10CU	

Modifier

Table 1564: Properties of each modifier.

Id	Name	SBO
Di10CU	Di10CU	

Products

Table 1565: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Di10UU	Di10UU	

Kinetic Law

Derived unit contains undeclared units

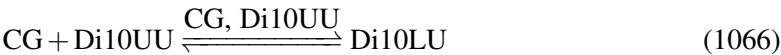
$$v_{520} = k_{u45} \cdot [Di10CU] \tag{1065}$$

7.521 Reaction r521

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di10UU bind yielding Di10LU

Reaction equation



Reactants

Table 1566: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di10UU	Di10UU	

Modifiers

Table 1567: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di10UU	Di10UU	

Product

Table 1568: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{521} = kb45 \cdot [CG] \cdot [Di10UU] \tag{1067}$$

7.522 Reaction r522

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di10LU dissociates to CG and Di10UU

Reaction equation



Reactant

Table 1569: Properties of each reactant.

Id	Name	SBO
Di10LU	Di10LU	

Modifier

Table 1570: Properties of each modifier.

Id	Name	SBO
Di10LU	Di10LU	

Products

Table 1571: Properties of each product.

Id	Name	SBO
CG	CG	
Di10UU	Di10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{522} = k_{u45} \cdot [Di10LU]$$

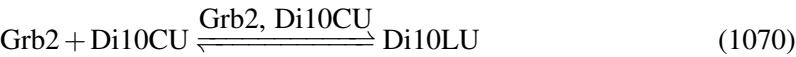
(1069)

7.523 Reaction r523

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di10CU bind yielding Di10LU

Reaction equation



Reactants

Table 1572: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di10CU	Di10CU	

Modifiers

Table 1573: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di10CU	Di10CU	

Product

Table 1574: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{523} = kbcg \cdot [Grb2] \cdot [Di10CU] \tag{1071}$$

7.524 Reaction r524

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di10LU dissociates to Grb2 and Di10CU

Reaction equation



Reactant

Table 1575: Properties of each reactant.

Id	Name	SBO
Di10LU	Di10LU	

Modifier

Table 1576: Properties of each modifier.

Id	Name	SBO
Di10LU	Di10LU	

Products

Table 1577: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di10CU	Di10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{524} = kucg \cdot [Di10LU] \tag{1073}$$

7.525 Reaction r525

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di01UU bind yielding Di01UG

Reaction equation



Reactants

Table 1578: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di01UU	Di01UU	

Modifiers

Table 1579: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di01UU	Di01UU	

Product

Table 1580: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{525} = kb68 \cdot [Grb2] \cdot [Di01UU] \tag{1075}$$

7.526 Reaction r526

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di01UG dissociates to Grb2 and Di01UU

Reaction equation



Reactant

Table 1581: Properties of each reactant.

Id	Name	SBO
Di01UG	Di01UG	

Modifier

Table 1582: Properties of each modifier.

Id	Name	SBO
Di01UG	Di01UG	

Products

Table 1583: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{526} = ku68 \cdot [Di01UG]$$

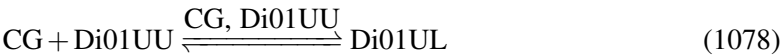
(1077)

7.527 Reaction r527

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di01UU bind yielding Di01UL

Reaction equation



Reactants

Table 1584: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di01UU	Di01UU	

Modifiers

Table 1585: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di01UU	Di01UU	

Product

Table 1586: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{527} = kb68 \cdot [CG] \cdot [Di01UU] \tag{1079}$$

7.528 Reaction r528

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di01UL dissociates to CG and Di01UU

Reaction equation



Reactant

Table 1587: Properties of each reactant.

Id	Name	SBO
Di01UL	Di01UL	

Modifier

Table 1588: Properties of each modifier.

Id	Name	SBO
Di01UL	Di01UL	

Products

Table 1589: Properties of each product.

Id	Name	SBO
CG	CG	
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

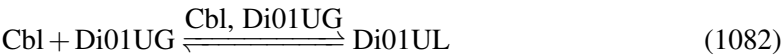
$$v_{528} = k_{u68} \cdot [Di01UL] \tag{1081}$$

7.529 Reaction r529

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di01UG bind yielding Di01UL

Reaction equation



Reactants

Table 1590: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di01UG	Di01UG	

Modifiers

Table 1591: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Di01UG	Di01UG	

Product

Table 1592: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{529} = k_{bcg} \cdot [Cbl] \cdot [Di01UG] \tag{1083}$$

7.530 Reaction r530

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di01UL dissociates to Cbl and Di01UG

Reaction equation



Reactant

Table 1593: Properties of each reactant.

Id	Name	SBO
Di01UL	Di01UL	

Modifier

Table 1594: Properties of each modifier.

Id	Name	SBO
Di01UL	Di01UL	

Products

Table 1595: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

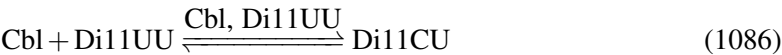
$$v_{530} = kucg \cdot [Di01UL] \tag{1085}$$

7.531 Reaction r531

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cb1 and Di11UU bind yielding Di11CU

Reaction equation



Reactants

Table 1596: Properties of each reactant.

Id	Name	SBO
Cb1	Cb1	
Di11UU	Di11UU	

Modifiers

Table 1597: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
Di11UU	Di11UU	

Product

Table 1598: Properties of each product.

Id	Name	SBO
Di11CU	Di11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{531} = kb45 \cdot [Cb1] \cdot [Di11UU]$$

(1087)

7.532 Reaction r532

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11CU dissociates to Cbl and Di11UU

Reaction equation



Reactant

Table 1599: Properties of each reactant.

Id	Name	SBO
Di11CU	Di11CU	

Modifier

Table 1600: Properties of each modifier.

Id	Name	SBO
Di11CU	Di11CU	

Products

Table 1601: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{532} = k_{u45} \cdot [Di11CU] \tag{1089}$$

7.533 Reaction r533

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di11UU bind yielding Di11LU

Reaction equation



Reactants

Table 1602: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di11UU	Di11UU	

Modifiers

Table 1603: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di11UU	Di11UU	

Product

Table 1604: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{533} = kb45 \cdot [CG] \cdot [Di11UU] \tag{1091}$$

7.534 Reaction r534

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11LU dissociates to CG and Di11UU

Reaction equation



Reactant

Table 1605: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	

Modifier

Table 1606: Properties of each modifier.

Id	Name	SBO
Di11LU	Di11LU	

Products

Table 1607: Properties of each product.

Id	Name	SBO
CG	CG	
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{534} = k_{u45} \cdot [Di11LU] \tag{1093}$$

7.535 Reaction r535

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di11UU bind yielding Di11UG

Reaction equation



Reactants

Table 1608: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di11UU	Di11UU	

Modifiers

Table 1609: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di11UU	Di11UU	

Product

Table 1610: Properties of each product.

Id	Name	SBO
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{535} = kb68 \cdot [Grb2] \cdot [Di11UU] \tag{1095}$$

7.536 Reaction r536

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11UG dissociates to Grb2 and Di11UU

Reaction equation



Reactant

Table 1611: Properties of each reactant.

Id	Name	SBO
Di11UG	Di11UG	

Modifier

Table 1612: Properties of each modifier.

Id	Name	SBO
Di11UG	Di11UG	

Products

Table 1613: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

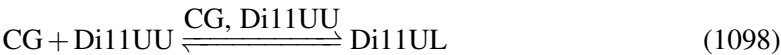
$$v_{536} = ku_{68} \cdot [Di11UG] \tag{1097}$$

7.537 Reaction r537

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di11UU bind yielding Di11UL

Reaction equation



Reactants

Table 1614: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di11UU	Di11UU	

Modifiers

Table 1615: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di11UU	Di11UU	

Product

Table 1616: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{537} = kb68 \cdot [CG] \cdot [Di11UU]$$

(1099)

7.538 Reaction r538

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11UL dissociates to CG and Di11UU

Reaction equation



Reactant

Table 1617: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	

Modifier

Table 1618: Properties of each modifier.

Id	Name	SBO
Di11UL	Di11UL	

Products

Table 1619: Properties of each product.

Id	Name	SBO
CG	CG	
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

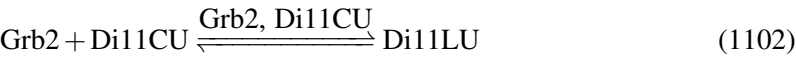
$$v_{538} = k_{u68} \cdot [Di11UL] \tag{1101}$$

7.539 Reaction r539

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di11CU bind yielding Di11LU

Reaction equation



Reactants

Table 1620: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di11CU	Di11CU	

Modifiers

Table 1621: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di11CU	Di11CU	

Product

Table 1622: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{539} = kbcg \cdot [Grb2] \cdot [Di11CU] \tag{1103}$$

7.540 Reaction r540

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11LU dissociates to Grb2 and Di11CU

Reaction equation



Reactant

Table 1623: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	

Modifier

Table 1624: Properties of each modifier.

Id	Name	SBO
Di11LU	Di11LU	

Products

Table 1625: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di11CU	Di11CU	

Kinetic Law

Derived unit contains undeclared units

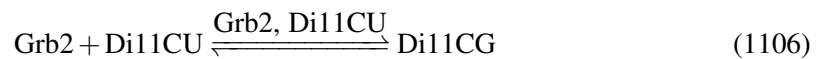
$$v_{540} = kucg \cdot [Di11LU] \quad (1105)$$

7.541 Reaction r541

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di11CU bind yielding Di11CG

Reaction equation



Reactants

Table 1626: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di11CU	Di11CU	

Modifiers

Table 1627: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di11CU	Di11CU	

Product

Table 1628: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{541} = kb68 \cdot [Grb2] \cdot [Di11CU]$$

(1107)

7.542 Reaction r542

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11CG dissociates to Grb2 and Di11CU

Reaction equation



Reactant

Table 1629: Properties of each reactant.

Id	Name	SBO
Di11CG	Di11CG	

Modifier

Table 1630: Properties of each modifier.

Id	Name	SBO
Di11CG	Di11CG	

Products

Table 1631: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di11CU	Di11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{542} = ku68 \cdot [Di11CG] \tag{1109}$$

7.543 Reaction r543

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di11LU bind yielding Di11LG

Reaction equation



Reactants

Table 1632: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di11LU	Di11LU	

Modifiers

Table 1633: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di11LU	Di11LU	

Product

Table 1634: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{543} = kb68 \cdot [Grb2] \cdot [Di11LU] \tag{1111}$$

7.544 Reaction r544

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11LG dissociates to Grb2 and Di11LU

Reaction equation



Reactant

Table 1635: Properties of each reactant.

Id	Name	SBO
Di11LG	Di11LG	

Modifier

Table 1636: Properties of each modifier.

Id	Name	SBO
Di11LG	Di11LG	

Products

Table 1637: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{544} = ku68 \cdot [Di11LG] \tag{1113}$$

7.545 Reaction r545

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11LU transforms in (singly-bound -> doubly-bound) Di11CC

Reaction equation



Reactant

Table 1638: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	

Modifier

Table 1639: Properties of each modifier.

Id	Name	SBO
Di11LU	Di11LU	

Product

Table 1640: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{545} = kb68P \cdot [Di11LU] \tag{1115}$$

7.546 Reaction r546

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CC tranforms in (doubly-bound -> singly-bound) Di11LU

Reaction equation



Reactant

Table 1641: Properties of each reactant.

Id	Name	SBO
Di11CC	Di11CC	

Modifier

Table 1642: Properties of each modifier.

Id	Name	SBO
Di11CC	Di11CC	

Product

Table 1643: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

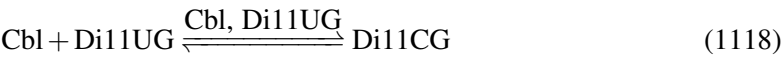
$$v_{546} = k_{u68M} \cdot [Di11CC] \tag{1117}$$

7.547 Reaction r547

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di11UG bind yielding Di11CG

Reaction equation



Reactants

Table 1644: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di11UG	Di11UG	

Modifiers

Table 1645: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Di11UG	Di11UG	

Product

Table 1646: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{547} = kb45 \cdot [Cbl] \cdot [Di11UG] \quad (1119)$$

7.548 Reaction r548

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11CG dissociates to Cbl and Di11UG

Reaction equation**Reactant**

Table 1647: Properties of each reactant.

Id	Name	SBO
Di11CG	Di11CG	

Modifier

Table 1648: Properties of each modifier.

Id	Name	SBO
Di11CG	Di11CG	

Products

Table 1649: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

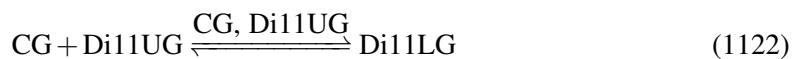
$$v_{548} = k_{u45} \cdot [\text{Di11CG}] \quad (1121)$$

7.549 Reaction r549

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di11UG bind yielding Di11LG

Reaction equation



Reactants

Table 1650: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di11UG	Di11UG	

Modifiers

Table 1651: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di11UG	Di11UG	

Product

Table 1652: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{549} = k_{b45} \cdot [CG] \cdot [Di11UG]$$

(1123)

7.550 Reaction r550

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11LG dissociates to CG and Di11UG

Reaction equation



Reactant

Table 1653: Properties of each reactant.

Id	Name	SBO
Di11LG	Di11LG	

Modifier

Table 1654: Properties of each modifier.

Id	Name	SBO
Di11LG	Di11LG	

Products

Table 1655: Properties of each product.

Id	Name	SBO
CG	CG	
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{550} = k_{u45} \cdot [\text{Di11LG}] \quad (1125)$$

7.551 Reaction r551

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di11UG bind yielding Di11UL

Reaction equation



Reactants

Table 1656: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di11UG	Di11UG	

Modifiers

Table 1657: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Di11UG	Di11UG	

Product

Table 1658: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{551} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{Di11UG}] \quad (1127)$$

7.552 Reaction r552

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11UL dissociates to Cbl and Di11UG

Reaction equation



Reactant

Table 1659: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	

Modifier

Table 1660: Properties of each modifier.

Id	Name	SBO
Di11UL	Di11UL	

Products

Table 1661: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{552} = kucg \cdot [\text{Di11UL}] \quad (1129)$$

7.553 Reaction r553

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UL transforms in (singly-bound -> doubly-bound) Di11CC

Reaction equation



Reactant

Table 1662: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	

Modifier

Table 1663: Properties of each modifier.

Id	Name	SBO
Di11UL	Di11UL	

Product

Table 1664: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{553} = \text{kb45P} \cdot [\text{Di11UL}]$$

(1131)

7.554 Reaction r554

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CC tranforms in (doubly-bound -> singly-bound) Di11UL

Reaction equation



Reactant

Table 1665: Properties of each reactant.

Id	Name	SBO
Di11CC	Di11CC	

Modifier

Table 1666: Properties of each modifier.

Id	Name	SBO
Di11CC	Di11CC	

Product

Table 1667: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{554} = k_{u45M} \cdot [Di11CC] \tag{1133}$$

7.555 Reaction r555

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CG transforms in (Cbl bind Grb2 directly) Di11CC

Reaction equation



Reactant

Table 1668: Properties of each reactant.

Id	Name	SBO
Di11CG	Di11CG	

Modifier

Table 1669: Properties of each modifier.

Id	Name	SBO
Di11CG	Di11CG	

Product

Table 1670: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{555} = k_{bcgP} \cdot [Di11CG] \tag{1135}$$

7.556 Reaction r556

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Di11CG

Reaction equation



Reactant

Table 1671: Properties of each reactant.

Id	Name	SBO
Di11CC	Di11CC	

Modifier

Table 1672: Properties of each modifier.

Id	Name	SBO
Di11CC	Di11CC	

Product

Table 1673: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{556} = kucgM \cdot [Di11CC] \tag{1137}$$

7.557 Reaction r557

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di11CG bind yielding Di11LG

Reaction equation



Reactants

Table 1674: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di11CG	Di11CG	

Modifiers

Table 1675: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di11CG	Di11CG	

Product

Table 1676: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{557} = kbcg \cdot [Grb2] \cdot [Di11CG] \tag{1139}$$

7.558 Reaction r558

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di11LG dissociates to Grb2 and Di11CG

Reaction equation



Reactant

Table 1677: Properties of each reactant.

Id	Name	SBO
Di11LG	Di11LG	

Modifier

Table 1678: Properties of each modifier.

Id	Name	SBO
Di11LG	Di11LG	

Products

Table 1679: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{558} = kucg \cdot [Di11LG] \quad (1141)$$

7.559 Reaction r559

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di02UU bind yielding Di02UG

Reaction equation



Reactants

Table 1680: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di02UU	Di02UU	

Modifiers

Table 1681: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di02UU	Di02UU	

Product

Table 1682: Properties of each product.

Id	Name	SBO
Di02UG	Di02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{559} = 2 \cdot kb68 \cdot [Grb2] \cdot [Di02UU] \tag{1143}$$

7.560 Reaction r560

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di02UG dissociates to Grb2 and Di02UU

Reaction equation



Reactant

Table 1683: Properties of each reactant.

Id	Name	SBO
Di02UG	Di02UG	

Modifier

Table 1684: Properties of each modifier.

Id	Name	SBO
Di02UG	Di02UG	

Products

Table 1685: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di02UU	Di02UU	

Kinetic Law

Derived unit contains undeclared units

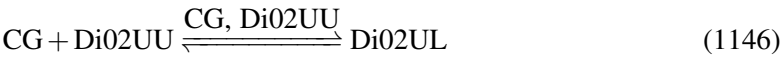
$$v_{560} = ku_{68} \cdot [Di02UG] \tag{1145}$$

7.561 Reaction r561

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di02UU bind yielding Di02UL

Reaction equation



Reactants

Table 1686: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di02UU	Di02UU	

Modifiers

Table 1687: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di02UU	Di02UU	

Product

Table 1688: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{561} = 2 \cdot kb68 \cdot [CG] \cdot [Di02UU]$$

(1147)

7.562 Reaction r562

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di02UL dissociates to CG and Di02UU

Reaction equation



Reactant

Table 1689: Properties of each reactant.

Id	Name	SBO
Di02UL	Di02UL	

Modifier

Table 1690: Properties of each modifier.

Id	Name	SBO
Di02UL	Di02UL	

Products

Table 1691: Properties of each product.

Id	Name	SBO
CG	CG	
Di02UU	Di02UU	

Kinetic Law

Derived unit contains undeclared units

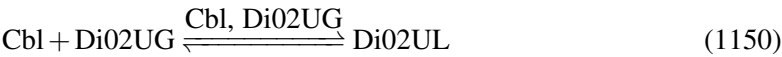
$$v_{562} = k_{u68} \cdot [Di02UL] \tag{1149}$$

7.563 Reaction r563

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di02UG bind yielding Di02UL

Reaction equation



Reactants

Table 1692: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di02UG	Di02UG	

Modifiers

Table 1693: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Di02UG	Di02UG	

Product

Table 1694: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{563} = kbcg \cdot [Cbl] \cdot [Di02UG] \tag{1151}$$

7.564 Reaction r564

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di02UL dissociates to Cbl and Di02UG

Reaction equation



Reactant

Table 1695: Properties of each reactant.

Id	Name	SBO
Di02UL	Di02UL	

Modifier

Table 1696: Properties of each modifier.

Id	Name	SBO
Di02UL	Di02UL	

Products

Table 1697: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
Di02UG	Di02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{564} = kucg \cdot [Di02UL] \tag{1153}$$

7.565 Reaction r565

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di12UU bind yielding Di12CU

Reaction equation



Reactants

Table 1698: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
Di12UU	Di12UU	

Modifiers

Table 1699: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
Di12UU	Di12UU	

Product

Table 1700: Properties of each product.

Id	Name	SBO
Di12CU	Di12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{565} = kb45 \cdot [Cb1] \cdot [Di12UU] \tag{1155}$$

7.566 Reaction r566

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12CU dissociates to Cbl and Di12UU

Reaction equation



Reactant

Table 1701: Properties of each reactant.

Id	Name	SBO
Di12CU	Di12CU	

Modifier

Table 1702: Properties of each modifier.

Id	Name	SBO
Di12CU	Di12CU	

Products

Table 1703: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

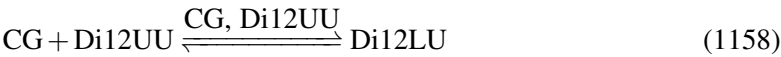
$$v_{566} = k_{u45} \cdot [Di12CU] \tag{1157}$$

7.567 Reaction r567

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di12UU bind yielding Di12LU

Reaction equation



Reactants

Table 1704: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di12UU	Di12UU	

Modifiers

Table 1705: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di12UU	Di12UU	

Product

Table 1706: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{567} = kb45 \cdot [CG] \cdot [Di12UU] \tag{1159}$$

7.568 Reaction r568

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12LU dissociates to CG and Di12UU

Reaction equation



Reactant

Table 1707: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	

Modifier

Table 1708: Properties of each modifier.

Id	Name	SBO
Di12LU	Di12LU	

Products

Table 1709: Properties of each product.

Id	Name	SBO
CG	CG	
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

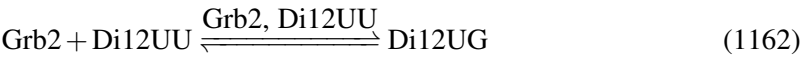
$$v_{568} = k_{u45} \cdot [Di12LU] \tag{1161}$$

7.569 Reaction r569

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di12UU bind yielding Di12UG

Reaction equation



Reactants

Table 1710: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di12UU	Di12UU	

Modifiers

Table 1711: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di12UU	Di12UU	

Product

Table 1712: Properties of each product.

Id	Name	SBO
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{569} = 2 \cdot kb68 \cdot [Grb2] \cdot [Di12UU]$$

(1163)

7.570 Reaction r570

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12UG dissociates to Grb2 and Di12UU

Reaction equation



Reactant

Table 1713: Properties of each reactant.

Id	Name	SBO
Di12UG	Di12UG	

Modifier

Table 1714: Properties of each modifier.

Id	Name	SBO
Di12UG	Di12UG	

Products

Table 1715: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{570} = k_{u68} \cdot [Di12UG]$$

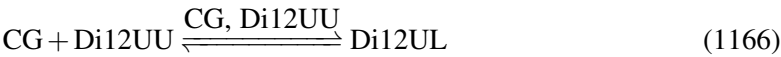
(1165)

7.571 Reaction r571

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di12UU bind yielding Di12UL

Reaction equation



Reactants

Table 1716: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di12UU	Di12UU	

Modifiers

Table 1717: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di12UU	Di12UU	

Product

Table 1718: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{571} = 2 \cdot kb68 \cdot [CG] \cdot [Di12UU] \tag{1167}$$

7.572 Reaction r572

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12UL dissociates to CG and Di12UU

Reaction equation



Reactant

Table 1719: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifier

Table 1720: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	

Products

Table 1721: Properties of each product.

Id	Name	SBO
CG	CG	
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{572} = k_{u68} \cdot [Di12UL] \tag{1169}$$

7.573 Reaction r573

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di12CU bind yielding Di12LU

Reaction equation



Reactants

Table 1722: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di12CU	Di12CU	

Modifiers

Table 1723: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di12CU	Di12CU	

Product

Table 1724: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{573} = kbcg \cdot [Grb2] \cdot [Di12CU] \tag{1171}$$

7.574 Reaction r574

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12LU dissociates to Grb2 and Di12CU

Reaction equation



Reactant

Table 1725: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	

Modifier

Table 1726: Properties of each modifier.

Id	Name	SBO
Di12LU	Di12LU	

Products

Table 1727: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di12CU	Di12CU	

Kinetic Law

Derived unit contains undeclared units

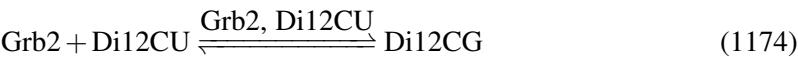
$$v_{574} = kucg \cdot [Di12LU] \tag{1173}$$

7.575 Reaction r575

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di12CU bind yielding Di12CG

Reaction equation



Reactants

Table 1728: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di12CU	Di12CU	

Modifiers

Table 1729: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di12CU	Di12CU	

Product

Table 1730: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{575} = 2 \cdot kb68 \cdot [Grb2] \cdot [Di12CU] \tag{1175}$$

7.576 Reaction r576

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12CG dissociates to Grb2 and Di12CU

Reaction equation



Reactant

Table 1731: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	

Modifier

Table 1732: Properties of each modifier.

Id	Name	SBO
Di12CG	Di12CG	

Products

Table 1733: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di12CU	Di12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{576} = ku_{68} \cdot [Di12CG] \tag{1177}$$

7.577 Reaction r577

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di12LU bind yielding Di12LG

Reaction equation



Reactants

Table 1734: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di12LU	Di12LU	

Modifiers

Table 1735: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di12LU	Di12LU	

Product

Table 1736: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{577} = 2 \cdot kb68 \cdot [Grb2] \cdot [Di12LU] \tag{1179}$$

7.578 Reaction r578

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12LG dissociates to Grb2 and Di12LU

Reaction equation



Reactant

Table 1737: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	

Modifier

Table 1738: Properties of each modifier.

Id	Name	SBO
Di12LG	Di12LG	

Products

Table 1739: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{578} = k_{u68} \cdot [Di12LG] \tag{1181}$$

7.579 Reaction r579

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12LU transforms in (singly-bound -> doubly-bound) Di12CC

Reaction equation



Reactant

Table 1740: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	

Modifier

Table 1741: Properties of each modifier.

Id	Name	SBO
Di12LU	Di12LU	

Product

Table 1742: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{579} = 2 \cdot kb68P \cdot [Di12LU] \tag{1183}$$

7.580 Reaction r580

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CC tranforms in (doubly-bound -> singly-bound) Di12LU

Reaction equation



Reactant

Table 1743: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	

Modifier

Table 1744: Properties of each modifier.

Id	Name	SBO
Di12CC	Di12CC	

Product

Table 1745: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

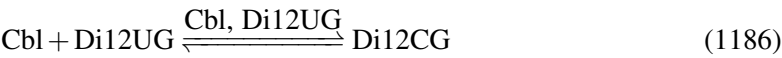
$$v_{580} = k_{u68M} \cdot [Di12CC] \tag{1185}$$

7.581 Reaction r581

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di12UG bind yielding Di12CG

Reaction equation



Reactants

Table 1746: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di12UG	Di12UG	

Modifiers

Table 1747: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Di12UG	Di12UG	

Product

Table 1748: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	

Kinetic Law**Derived unit** contains undeclared units

$$v_{581} = kb45 \cdot [Cbl] \cdot [Di12UG] \quad (1187)$$

7.582 Reaction r582

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12CG dissociates to Cbl and Di12UG**Reaction equation****Reactant**

Table 1749: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	

Modifier

Table 1750: Properties of each modifier.

Id	Name	SBO
Di12CG	Di12CG	

Products

Table 1751: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{582} = k_{u45} \cdot [\text{Di12CG}] \quad (1189)$$

7.583 Reaction r583

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Di12UG bind yielding Di12LG

Reaction equation



Reactants

Table 1752: Properties of each reactant.

Id	Name	SBO
CG	CG	
Di12UG	Di12UG	

Modifiers

Table 1753: Properties of each modifier.

Id	Name	SBO
CG	CG	
Di12UG	Di12UG	

Product

Table 1754: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{583} = k_{b45} \cdot [CG] \cdot [Di12UG]$$

(1191)

7.584 Reaction r584

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12LG dissociates to CG and Di12UG

Reaction equation



Reactant

Table 1755: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	

Modifier

Table 1756: Properties of each modifier.

Id	Name	SBO
Di12LG	Di12LG	

Products

Table 1757: Properties of each product.

Id	Name	SBO
CG	CG	
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

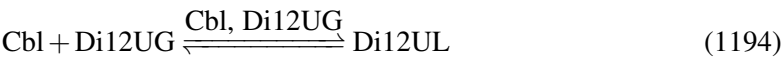
$$v_{584} = k_{u45} \cdot [\text{Di12LG}] \tag{1193}$$

7.585 Reaction r585

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Di12UG bind yielding Di12UL

Reaction equation



Reactants

Table 1758: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Di12UG	Di12UG	

Modifiers

Table 1759: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Di12UG	Di12UG	

Product

Table 1760: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{585} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{Di12UG}] \tag{1195}$$

7.586 Reaction r586

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12UL dissociates to Cbl and Di12UG

Reaction equation



Reactant

Table 1761: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifier

Table 1762: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	

Products

Table 1763: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

$v_{586} = kucg \cdot [\text{Di12UL}]$

(1197)

7.587 Reaction r587

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UL transforms in (singly-bound -> doubly-bound) Di12CC

Reaction equation



Reactant

Table 1764: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifier

Table 1765: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	

Product

Table 1766: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{587} = \text{kb45P} \cdot [\text{Di12UL}]$$

(1199)

7.588 Reaction r588

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CC tranforms in (doubly-bound -> singly-bound) Di12UL

Reaction equation



Reactant

Table 1767: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	

Modifier

Table 1768: Properties of each modifier.

Id	Name	SBO
Di12CC	Di12CC	

Product

Table 1769: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{588} = k_{u45M} \cdot [Di12CC] \tag{1201}$$

7.589 Reaction r589

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CG transforms in (Cbl bind Grb2 directly) Di12CC

Reaction equation



Reactant

Table 1770: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	

Modifier

Table 1771: Properties of each modifier.

Id	Name	SBO
Di12CG	Di12CG	

Product

Table 1772: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{589} = k_{bcgP} \cdot [Di12CG] \tag{1203}$$

7.590 Reaction r590

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Di12CG

Reaction equation



Reactant

Table 1773: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	

Modifier

Table 1774: Properties of each modifier.

Id	Name	SBO
Di12CC	Di12CC	

Product

Table 1775: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{590} = kucgM \cdot [Di12CC] \tag{1205}$$

7.591 Reaction r591

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Di12CG bind yielding Di12LG

Reaction equation



Reactants

Table 1776: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Di12CG	Di12CG	

Modifiers

Table 1777: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Di12CG	Di12CG	

Product

Table 1778: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{591} = k_{bcg} \cdot [\text{Grb2}] \cdot [\text{Di12CG}] \tag{1207}$$

7.592 Reaction r592

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Di12LG dissociates to Grb2 and Di12CG

Reaction equation



Reactant

Table 1779: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	

Modifier

Table 1780: Properties of each modifier.

Id	Name	SBO
Di12LG	Di12LG	

Products

Table 1781: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Di12CG	Di12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{592} = kucg \cdot [Di12LG] \quad (1209)$$

7.593 Reaction r593

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da10UU bind yielding Da10CU

Reaction equation



Reactants

Table 1782: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da10UU	Da10UU	

Modifiers

Table 1783: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da10UU	Da10UU	

Product

Table 1784: Properties of each product.

Id	Name	SBO
Da10CU	Da10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{593} = kb_{45} \cdot [Cbl] \cdot [Da10UU] \tag{1211}$$

7.594 Reaction r594

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da10CU dissociates to Cbl and Da10UU

Reaction equation



Reactant

Table 1785: Properties of each reactant.

Id	Name	SBO
Da10CU	Da10CU	

Modifier

Table 1786: Properties of each modifier.

Id	Name	SBO
Da10CU	Da10CU	

Products

Table 1787: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Da10UU	Da10UU	

Kinetic Law

Derived unit contains undeclared units

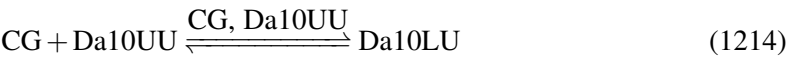
$$v_{594} = k_{u45} \cdot [Da10CU] \tag{1213}$$

7.595 Reaction r595

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da10UU bind yielding Da10LU

Reaction equation



Reactants

Table 1788: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da10UU	Da10UU	

Modifiers

Table 1789: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da10UU	Da10UU	

Product

Table 1790: Properties of each product.

Id	Name	SBO
Da10LU	Da10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{595} = k_{b45} \cdot [CG] \cdot [Da10UU] \tag{1215}$$

7.596 Reaction r596

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da10LU dissociates to CG and Da10UU

Reaction equation



Reactant

Table 1791: Properties of each reactant.

Id	Name	SBO
Da10LU	Da10LU	

Modifier

Table 1792: Properties of each modifier.

Id	Name	SBO
Da10LU	Da10LU	

Products

Table 1793: Properties of each product.

Id	Name	SBO
CG	CG	
Da10UU	Da10UU	

Kinetic Law

Derived unit contains undeclared units

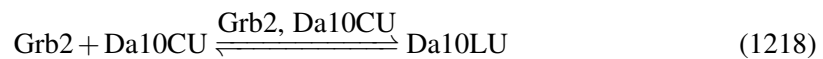
$$v_{596} = k_{u45} \cdot [\text{Da10LU}] \quad (1217)$$

7.597 Reaction r597

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da10CU bind yielding Da10LU

Reaction equation



Reactants

Table 1794: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da10CU	Da10CU	

Modifiers

Table 1795: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da10CU	Da10CU	

Product

Table 1796: Properties of each product.

Id	Name	SBO
Da10LU	Da10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{597} = kbcg \cdot [Grb2] \cdot [Da10CU] \tag{1219}$$

7.598 Reaction r598

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da10LU dissociates to Grb2 and Da10CU

Reaction equation



Reactant

Table 1797: Properties of each reactant.

Id	Name	SBO
Da10LU	Da10LU	

Modifier

Table 1798: Properties of each modifier.

Id	Name	SBO
Da10LU	Da10LU	

Products

Table 1799: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da10CU	Da10CU	

Kinetic Law

Derived unit contains undeclared units

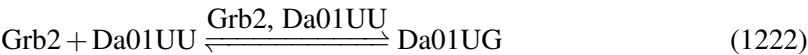
$$v_{598} = kucg \cdot [Da10LU] \tag{1221}$$

7.599 Reaction r599

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da01UU bind yielding Da01UG

Reaction equation



Reactants

Table 1800: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da01UU	Da01UU	

Modifiers

Table 1801: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da01UU	Da01UU	

Product

Table 1802: Properties of each product.

Id	Name	SBO
Da01UG	Da01UG	

Kinetic Law

Derived unit contains undeclared units

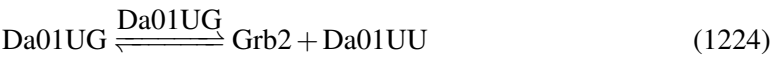
$$v_{599} = kb68 \cdot [Grb2] \cdot [Da01UU] \tag{1223}$$

7.600 Reaction r600

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da01UG dissociates to Grb2 and Da01UU

Reaction equation



Reactant

Table 1803: Properties of each reactant.

Id	Name	SBO
Da01UG	Da01UG	

Modifier

Table 1804: Properties of each modifier.

Id	Name	SBO
Da01UG	Da01UG	

Products

Table 1805: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

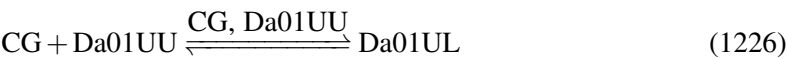
$$v_{600} = ku_{68} \cdot [Da01UG] \tag{1225}$$

7.601 Reaction r601

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da01UU bind yielding Da01UL

Reaction equation



Reactants

Table 1806: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da01UU	Da01UU	

Modifiers

Table 1807: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da01UU	Da01UU	

Product

Table 1808: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{601} = kb_{68} \cdot [CG] \cdot [Da01UU] \tag{1227}$$

7.602 Reaction r602

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da01UL dissociates to CG and Da01UU

Reaction equation



Reactant

Table 1809: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	

Modifier

Table 1810: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	

Products

Table 1811: Properties of each product.

Id	Name	SBO
CG	CG	
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{602} = k_{u68} \cdot [Da01UL]$$

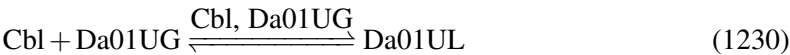
(1229)

7.603 Reaction r603

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da01UG bind yielding Da01UL

Reaction equation



Reactants

Table 1812: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da01UG	Da01UG	

Modifiers

Table 1813: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da01UG	Da01UG	

Product

Table 1814: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{603} = k_{bcg} \cdot [Cbl] \cdot [Da01UG] \tag{1231}$$

7.604 Reaction r604

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da01UL dissociates to Cbl and Da01UG

Reaction equation



Reactant

Table 1815: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	

Modifier

Table 1816: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	

Products

Table 1817: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
Da01UG	Da01UG	

Kinetic Law

Derived unit contains undeclared units

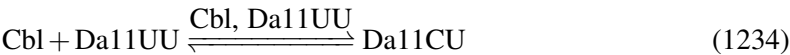
$$v_{604} = kucg \cdot [Da01UL] \tag{1233}$$

7.605 Reaction r605

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da11UU bind yielding Da11CU

Reaction equation



Reactants

Table 1818: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
Da11UU	Da11UU	

Modifiers

Table 1819: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da11UU	Da11UU	

Product

Table 1820: Properties of each product.

Id	Name	SBO
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{605} = k_{b45} \cdot [Cbl] \cdot [Da11UU]$$

(1235)

7.606 Reaction r606

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11CU dissociates to Cbl and Da11UU

Reaction equation



Reactant

Table 1821: Properties of each reactant.

Id	Name	SBO
Da11CU	Da11CU	

Modifier

Table 1822: Properties of each modifier.

Id	Name	SBO
Da11CU	Da11CU	

Products

Table 1823: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{606} = ku_{45} \cdot [Da11CU] \tag{1237}$$

7.607 Reaction r607

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da11UU bind yielding Da11LU

Reaction equation



Reactants

Table 1824: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da11UU	Da11UU	

Modifiers

Table 1825: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da11UU	Da11UU	

Product

Table 1826: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{607} = k_{b45} \cdot [CG] \cdot [Da11UU] \tag{1239}$$

7.608 Reaction r608

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11LU dissociates to CG and Da11UU

Reaction equation



Reactant

Table 1827: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 1828: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Products

Table 1829: Properties of each product.

Id	Name	SBO
CG	CG	
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

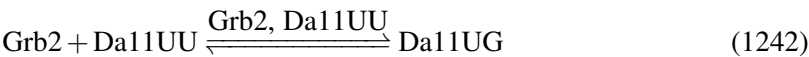
$$v_{608} = k_{u45} \cdot [Da11LU] \tag{1241}$$

7.609 Reaction r609

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da11UU bind yielding Da11UG

Reaction equation



Reactants

Table 1830: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da11UU	Da11UU	

Modifiers

Table 1831: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da11UU	Da11UU	

Product

Table 1832: Properties of each product.

Id	Name	SBO
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{609} = kb68 \cdot [Grb2] \cdot [Da11UU] \tag{1243}$$

7.610 Reaction r610

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11UG dissociates to Grb2 and Da11UU

Reaction equation



Reactant

Table 1833: Properties of each reactant.

Id	Name	SBO
Da11UG	Da11UG	

Modifier

Table 1834: Properties of each modifier.

Id	Name	SBO
Da11UG	Da11UG	

Products

Table 1835: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

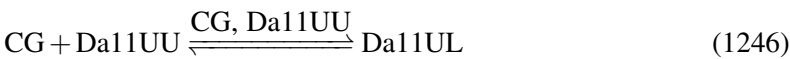
$$v_{610} = ku_{68} \cdot [Da11UG] \tag{1245}$$

7.611 Reaction r611

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da11UU bind yielding Da11UL

Reaction equation



Reactants

Table 1836: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da11UU	Da11UU	

Modifiers

Table 1837: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da11UU	Da11UU	

Product

Table 1838: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{611} = kb_{68} \cdot [CG] \cdot [Da11UU] \tag{1247}$$

7.612 Reaction r612

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11UL dissociates to CG and Da11UU

Reaction equation



Reactant

Table 1839: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 1840: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Products

Table 1841: Properties of each product.

Id	Name	SBO
CG	CG	
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

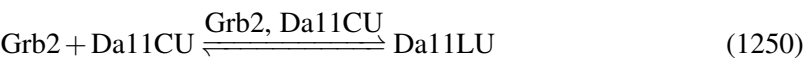
$$v_{612} = ku_{68} \cdot [Da11UL] \tag{1249}$$

7.613 Reaction r613

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da11CU bind yielding Da11LU

Reaction equation



Reactants

Table 1842: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da11CU	Da11CU	

Modifiers

Table 1843: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da11CU	Da11CU	

Product

Table 1844: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

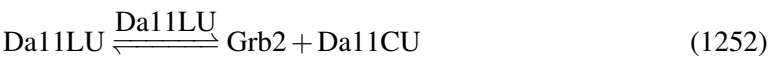
$$v_{613} = kbcg \cdot [Grb2] \cdot [Da11CU] \tag{1251}$$

7.614 Reaction r614

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11LU dissociates to Grb2 and Da11CU

Reaction equation



Reactant

Table 1845: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 1846: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Products

Table 1847: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

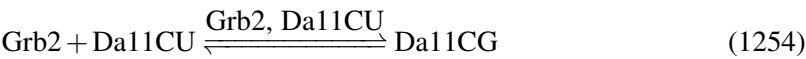
$$v_{614} = kucg \cdot [Da11LU] \tag{1253}$$

7.615 Reaction r615

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da11CU bind yielding Da11CG

Reaction equation



Reactants

Table 1848: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da11CU	Da11CU	

Modifiers

Table 1849: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da11CU	Da11CU	

Product

Table 1850: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

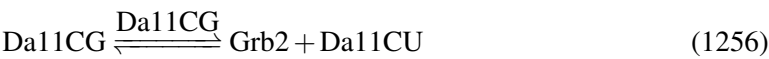
$$v_{615} = kb_{68} \cdot [Grb2] \cdot [Da11CU] \tag{1255}$$

7.616 Reaction r616

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11CG dissociates to Grb2 and Da11CU

Reaction equation



Reactant

Table 1851: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	

Modifier

Table 1852: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	

Products

Table 1853: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

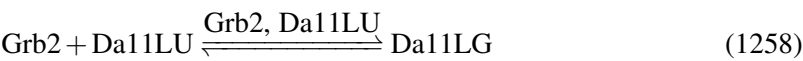
$$v_{616} = ku_{68} \cdot [Da11CG] \tag{1257}$$

7.617 Reaction r617

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da11LU bind yielding Da11LG

Reaction equation



Reactants

Table 1854: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da11LU	Da11LU	

Modifiers

Table 1855: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da11LU	Da11LU	

Product

Table 1856: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{617} = kb_{68} \cdot [Grb2] \cdot [Da11LU] \tag{1259}$$

7.618 Reaction r618

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11LG dissociates to Grb2 and Da11LU

Reaction equation



Reactant

Table 1857: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	

Modifier

Table 1858: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	

Products

Table 1859: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{618} = ku_{68} \cdot [Da11LG] \tag{1261}$$

7.619 Reaction r619

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LU transforms in (singly-bound -> doubly-bound) Da11CC

Reaction equation



Reactant

Table 1860: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 1861: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Product

Table 1862: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{619} = kb_{68P} \cdot [Da11LU] \tag{1263}$$

7.620 Reaction r620

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CC tranforms in (doubly-bound -> singly-bound) Da11LU

Reaction equation



Reactant

Table 1863: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	

Modifier

Table 1864: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	

Product

Table 1865: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{620} = ku68M \cdot [Da11CC] \tag{1265}$$

7.621 Reaction r621

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da11UG bind yielding Da11CG

Reaction equation



Reactants

Table 1866: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da11UG	Da11UG	

Modifiers

Table 1867: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da11UG	Da11UG	

Product

Table 1868: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{621} = kb45 \cdot [Cbl] \cdot [Da11UG] \quad (1267)$$

7.622 Reaction r622

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11CG dissociates to Cbl and Da11UG

Reaction equation**Reactant**

Table 1869: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	

Modifier

Table 1870: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	

Products

Table 1871: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{622} = k_{u45} \cdot [\text{Da11CG}] \quad (1269)$$

7.623 Reaction r623

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da11UG bind yielding Da11LG

Reaction equation



Reactants

Table 1872: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da11UG	Da11UG	

Modifiers

Table 1873: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da11UG	Da11UG	

Product

Table 1874: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{623} = k_{b45} \cdot [CG] \cdot [Da11UG]$$

(1271)

7.624 Reaction r624

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11LG dissociates to CG and Da11UG

Reaction equation



Reactant

Table 1875: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	

Modifier

Table 1876: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	

Products

Table 1877: Properties of each product.

Id	Name	SBO
CG	CG	
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{624} = k_{u45} \cdot [\text{Da11LG}] \quad (1273)$$

7.625 Reaction r625

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da11UG bind yielding Da11UL

Reaction equation



Reactants

Table 1878: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da11UG	Da11UG	

Modifiers

Table 1879: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da11UG	Da11UG	

Product

Table 1880: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{625} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{Da11UG}] \quad (1275)$$

7.626 Reaction r626

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11UL dissociates to Cbl and Da11UG

Reaction equation



Reactant

Table 1881: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 1882: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Products

Table 1883: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$v_{626} = kucg \cdot [\text{Da11UL}]$

(1277)

7.627 Reaction r627

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UL transforms in (singly-bound -> doubly-bound) Da11CC

Reaction equation



Reactant

Table 1884: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 1885: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Product

Table 1886: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	

Kinetic Law

Derived unit contains undeclared units

$v_{627} = \text{kb45P} \cdot [\text{Da11UL}]$

(1279)

7.628 Reaction r628

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CC tranforms in (doubly-bound -> singly-bound) Da11UL

Reaction equation



Reactant

Table 1887: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	

Modifier

Table 1888: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	

Product

Table 1889: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{628} = k_{u45M} \cdot [Da11CC]$$

(1281)

7.629 Reaction r629

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CG transforms in (Cbl bind Grb2 directly) Da11CC

Reaction equation



Reactant

Table 1890: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	

Modifier

Table 1891: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	

Product

Table 1892: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{629} = kbcgP \cdot [Da11CG] \tag{1283}$$

7.630 Reaction r630

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Da11CG

Reaction equation



Reactant

Table 1893: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	

Modifier

Table 1894: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	

Product

Table 1895: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

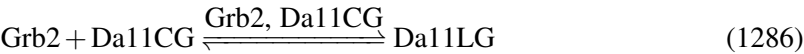
$$v_{630} = kucgM \cdot [Da11CC] \tag{1285}$$

7.631 Reaction r631

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da11CG bind yielding Da11LG

Reaction equation



Reactants

Table 1896: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da11CG	Da11CG	

Modifiers

Table 1897: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da11CG	Da11CG	

Product

Table 1898: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{631} = kbcg \cdot [Grb2] \cdot [Da11CG]$$

(1287)

7.632 Reaction r632

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da11LG dissociates to Grb2 and Da11CG

Reaction equation



Reactant

Table 1899: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	

Modifier

Table 1900: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	

Products

Table 1901: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

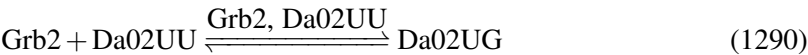
$$v_{632} = kucg \cdot [Da11LG] \tag{1289}$$

7.633 Reaction r633

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da02UU bind yielding Da02UG

Reaction equation



Reactants

Table 1902: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da02UU	Da02UU	

Modifiers

Table 1903: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da02UU	Da02UU	

Product

Table 1904: Properties of each product.

Id	Name	SBO
Da02UG	Da02UG	

Kinetic Law

Derived unit contains undeclared units

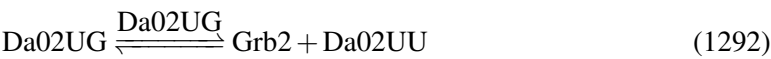
$$v_{633} = 2 \cdot kb68 \cdot [Grb2] \cdot [Da02UU] \tag{1291}$$

7.634 Reaction r634

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da02UG dissociates to Grb2 and Da02UU

Reaction equation



Reactant

Table 1905: Properties of each reactant.

Id	Name	SBO
Da02UG	Da02UG	

Modifier

Table 1906: Properties of each modifier.

Id	Name	SBO
Da02UG	Da02UG	

Products

Table 1907: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da02UU	Da02UU	

Kinetic Law

Derived unit contains undeclared units

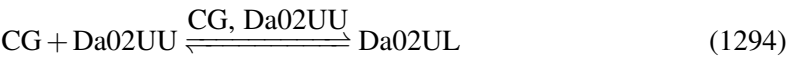
$$v_{634} = ku_{68} \cdot [Da02UG] \tag{1293}$$

7.635 Reaction r635

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da02UU bind yielding Da02UL

Reaction equation



Reactants

Table 1908: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da02UU	Da02UU	

Modifiers

Table 1909: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da02UU	Da02UU	

Product

Table 1910: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{635} = 2 \cdot kb68 \cdot [CG] \cdot [Da02UU] \tag{1295}$$

7.636 Reaction r636

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da02UL dissociates to CG and Da02UU

Reaction equation



Reactant

Table 1911: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	

Modifier

Table 1912: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	

Products

Table 1913: Properties of each product.

Id	Name	SBO
CG	CG	
Da02UU	Da02UU	

Kinetic Law

Derived unit contains undeclared units

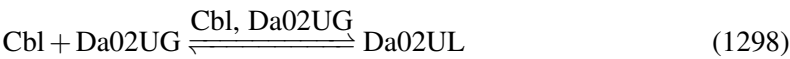
$$v_{636} = k_{u68} \cdot [Da02UL] \tag{1297}$$

7.637 Reaction r637

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da02UG bind yielding Da02UL

Reaction equation



Reactants

Table 1914: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da02UG	Da02UG	

Modifiers

Table 1915: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da02UG	Da02UG	

Product

Table 1916: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{637} = k_{bcg} \cdot [Cbl] \cdot [Da02UG] \tag{1299}$$

7.638 Reaction r638

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da02UL dissociates to Cbl and Da02UG

Reaction equation



Reactant

Table 1917: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	

Modifier

Table 1918: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	

Products

Table 1919: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Da02UG	Da02UG	

Kinetic Law

Derived unit contains undeclared units

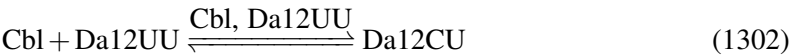
$$v_{638} = kucg \cdot [Da02UL] \tag{1301}$$

7.639 Reaction r639

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cb1 and Da12UU bind yielding Da12CU

Reaction equation



Reactants

Table 1920: Properties of each reactant.

Id	Name	SBO
Cb1	Cb1	
Da12UU	Da12UU	

Modifiers

Table 1921: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da12UU	Da12UU	

Product

Table 1922: Properties of each product.

Id	Name	SBO
Da12CU	Da12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{639} = kb45 \cdot [Cbl] \cdot [Da12UU] \tag{1303}$$

7.640 Reaction r640

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12CU dissociates to Cbl and Da12UU

Reaction equation



Reactant

Table 1923: Properties of each reactant.

Id	Name	SBO
Da12CU	Da12CU	

Modifier

Table 1924: Properties of each modifier.

Id	Name	SBO
Da12CU	Da12CU	

Products

Table 1925: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

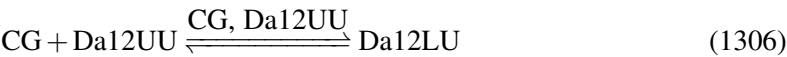
$$v_{640} = k_{u45} \cdot [Da12CU] \tag{1305}$$

7.641 Reaction r641

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da12UU bind yielding Da12LU

Reaction equation



Reactants

Table 1926: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da12UU	Da12UU	

Modifiers

Table 1927: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da12UU	Da12UU	

Product

Table 1928: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{641} = kb45 \cdot [CG] \cdot [Da12UU] \tag{1307}$$

7.642 Reaction r642

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12LU dissociates to CG and Da12UU

Reaction equation



Reactant

Table 1929: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	

Modifier

Table 1930: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	

Products

Table 1931: Properties of each product.

Id	Name	SBO
CG	CG	
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

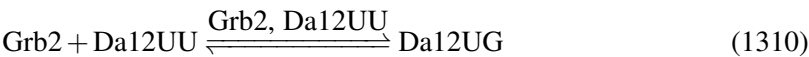
$$v_{642} = k_{u45} \cdot [Da12LU] \tag{1309}$$

7.643 Reaction r643

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da12UU bind yielding Da12UG

Reaction equation



Reactants

Table 1932: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da12UU	Da12UU	

Modifiers

Table 1933: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da12UU	Da12UU	

Product

Table 1934: Properties of each product.

Id	Name	SBO
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

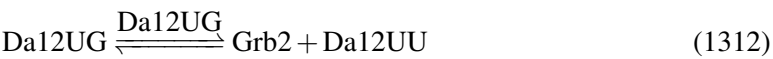
$$v_{643} = 2 \cdot kb68 \cdot [Grb2] \cdot [Da12UU] \tag{1311}$$

7.644 Reaction r644

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12UG dissociates to Grb2 and Da12UU

Reaction equation



Reactant

Table 1935: Properties of each reactant.

Id	Name	SBO
Da12UG	Da12UG	

Modifier

Table 1936: Properties of each modifier.

Id	Name	SBO
Da12UG	Da12UG	

Products

Table 1937: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{644} = ku_{68} \cdot [Da12UG]$$

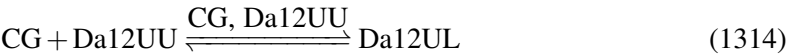
(1313)

7.645 Reaction r645

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da12UU bind yielding Da12UL

Reaction equation



Reactants

Table 1938: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da12UU	Da12UU	

Modifiers

Table 1939: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da12UU	Da12UU	

Product

Table 1940: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{645} = 2 \cdot kb_{68} \cdot [CG] \cdot [Da12UU] \tag{1315}$$

7.646 Reaction r646

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12UL dissociates to CG and Da12UU

Reaction equation



Reactant

Table 1941: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 1942: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Products

Table 1943: Properties of each product.

Id	Name	SBO
CG	CG	
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

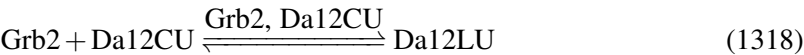
$$v_{646} = k_{u68} \cdot [Da12UL] \tag{1317}$$

7.647 Reaction r647

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da12CU bind yielding Da12LU

Reaction equation



Reactants

Table 1944: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da12CU	Da12CU	

Modifiers

Table 1945: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da12CU	Da12CU	

Product

Table 1946: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{647} = kbcg \cdot [Grb2] \cdot [Da12CU] \tag{1319}$$

7.648 Reaction r648

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12LU dissociates to Grb2 and Da12CU

Reaction equation



Reactant

Table 1947: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	

Modifier

Table 1948: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	

Products

Table 1949: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da12CU	Da12CU	

Kinetic Law

Derived unit contains undeclared units

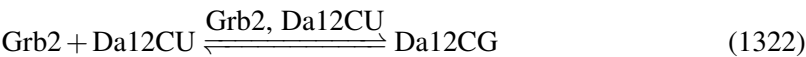
$$v_{648} = kucg \cdot [Da12LU] \tag{1321}$$

7.649 Reaction r649

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da12CU bind yielding Da12CG

Reaction equation



Reactants

Table 1950: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da12CU	Da12CU	

Modifiers

Table 1951: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da12CU	Da12CU	

Product

Table 1952: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

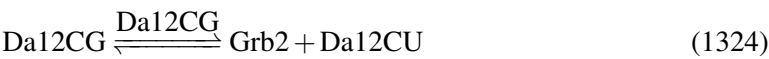
$$v_{649} = 2 \cdot kb68 \cdot [Grb2] \cdot [Da12CU] \tag{1323}$$

7.650 Reaction r650

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12CG dissociates to Grb2 and Da12CU

Reaction equation



Reactant

Table 1953: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	

Modifier

Table 1954: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	

Products

Table 1955: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da12CU	Da12CU	

Kinetic Law

Derived unit contains undeclared units

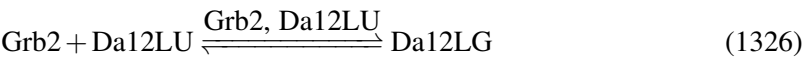
$$v_{650} = ku_{68} \cdot [Da12CG] \tag{1325}$$

7.651 Reaction r651

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da12LU bind yielding Da12LG

Reaction equation



Reactants

Table 1956: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da12LU	Da12LU	

Modifiers

Table 1957: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da12LU	Da12LU	

Product

Table 1958: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{651} = 2 \cdot kb68 \cdot [Grb2] \cdot [Da12LU]$$

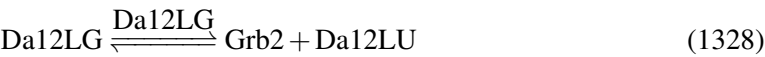
(1327)

7.652 Reaction r652

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12LG dissociates to Grb2 and Da12LU

Reaction equation



Reactant

Table 1959: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	

Modifier

Table 1960: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	

Products

Table 1961: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{652} = k_{u68} \cdot [Da12LG]$$

(1329)

7.653 Reaction r653

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LU transforms in (singly-bound -> doubly-bound) Da12CC

Reaction equation



Reactant

Table 1962: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	

Modifier

Table 1963: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	

Product

Table 1964: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{653} = 2 \cdot kb68P \cdot [Da12LU] \tag{1331}$$

7.654 Reaction r654

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CC tranforms in (doubly-bound -> singly-bound) Da12LU

Reaction equation



Reactant

Table 1965: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	

Modifier

Table 1966: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	

Product

Table 1967: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{654} = ku_{68M} \cdot [Da12CC]$$

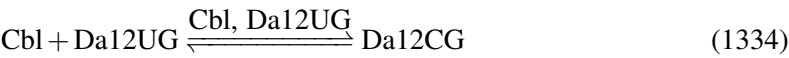
(1333)

7.655 Reaction r655

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da12UG bind yielding Da12CG

Reaction equation



Reactants

Table 1968: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da12UG	Da12UG	

Modifiers

Table 1969: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da12UG	Da12UG	

Product

Table 1970: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{655} = kb45 \cdot [Cbl] \cdot [Da12UG] \quad (1335)$$

7.656 Reaction r656

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12CG dissociates to Cbl and Da12UG

Reaction equation



Reactant

Table 1971: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	

Modifier

Table 1972: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	

Products

Table 1973: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{656} = k_{u45} \cdot [\text{Da12CG}] \quad (1337)$$

7.657 Reaction r657

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and Da12UG bind yielding Da12LG

Reaction equation



Reactants

Table 1974: Properties of each reactant.

Id	Name	SBO
CG	CG	
Da12UG	Da12UG	

Modifiers

Table 1975: Properties of each modifier.

Id	Name	SBO
CG	CG	
Da12UG	Da12UG	

Product

Table 1976: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{657} = k_{b45} \cdot [CG] \cdot [Da12UG]$$

(1339)

7.658 Reaction r658

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12LG dissociates to CG and Da12UG

Reaction equation



Reactant

Table 1977: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	

Modifier

Table 1978: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	

Products

Table 1979: Properties of each product.

Id	Name	SBO
CG	CG	
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{658} = k_{u45} \cdot [\text{Da12LG}] \quad (1341)$$

7.659 Reaction r659

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and Da12UG bind yielding Da12UL

Reaction equation



Reactants

Table 1980: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
Da12UG	Da12UG	

Modifiers

Table 1981: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
Da12UG	Da12UG	

Product

Table 1982: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{659} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{Da12UG}] \quad (1343)$$

7.660 Reaction r660

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12UL dissociates to Cbl and Da12UG

Reaction equation



Reactant

Table 1983: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 1984: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Products

Table 1985: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{660} = kucg \cdot [\text{Da12UL}] \quad (1345)$$

7.661 Reaction r661

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UL transforms in (singly-bound -> doubly-bound) Da12CC

Reaction equation



Reactant

Table 1986: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 1987: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Product

Table 1988: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{661} = \text{kb45P} \cdot [\text{Da12UL}]$$

(1347)

7.662 Reaction r662

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CC tranforms in (doubly-bound -> singly-bound) Da12UL

Reaction equation



Reactant

Table 1989: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	

Modifier

Table 1990: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	

Product

Table 1991: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{662} = k_{u45M} \cdot [Da12CC] \tag{1349}$$

7.663 Reaction r663

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CG transforms in (Cbl bind Grb2 directly) Da12CC

Reaction equation



Reactant

Table 1992: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	

Modifier

Table 1993: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	

Product

Table 1994: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{663} = kbcgP \cdot [Da12CG] \tag{1351}$$

7.664 Reaction r664

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) Da12CG

Reaction equation



Reactant

Table 1995: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	

Modifier

Table 1996: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	

Product

Table 1997: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

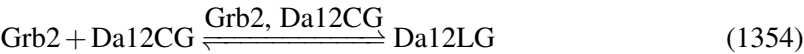
$$v_{664} = kucgM \cdot [Da12CC] \tag{1353}$$

7.665 Reaction r665

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and Da12CG bind yielding Da12LG

Reaction equation



Reactants

Table 1998: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
Da12CG	Da12CG	

Modifiers

Table 1999: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
Da12CG	Da12CG	

Product

Table 2000: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{665} = kbcg \cdot [Grb2] \cdot [Da12CG] \tag{1355}$$

7.666 Reaction r666

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name Da12LG dissociates to Grb2 and Da12CG

Reaction equation



Reactant

Table 2001: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	

Modifier

Table 2002: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	

Products

Table 2003: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{666} = kucg \cdot [Da12LG] \tag{1357}$$

7.667 Reaction r667

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL10UU bind yielding DiL10CU

Reaction equation



Reactants

Table 2004: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL10UU	DiL10UU	

Modifiers

Table 2005: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL10UU	DiL10UU	

Product

Table 2006: Properties of each product.

Id	Name	SBO
DiL10CU	DiL10CU	

Kinetic Law

Derived unit contains undeclared units

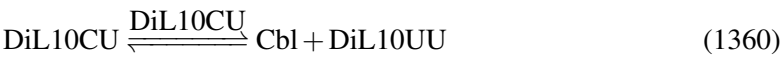
$$v_{667} = kb45 \cdot [Cbl] \cdot [DiL10UU] \tag{1359}$$

7.668 Reaction r668

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL10CU dissociates to Cbl and DiL10UU

Reaction equation



Reactant

Table 2007: Properties of each reactant.

Id	Name	SBO
DiL10CU	DiL10CU	

Modifier

Table 2008: Properties of each modifier.

Id	Name	SBO
DiL10CU	DiL10CU	

Products

Table 2009: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
DiL10UU	DiL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{668} = k_{u45} \cdot [\text{DiL10CU}] \quad (1361)$$

7.669 Reaction r669

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL10UU bind yielding DiL10LU

Reaction equation



Reactants

Table 2010: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL10UU	DiL10UU	

Modifiers

Table 2011: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL10UU	DiL10UU	

Product

Table 2012: Properties of each product.

Id	Name	SBO
DiL10LU	DiL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{669} = kb45 \cdot [CG] \cdot [DiL10UU] \tag{1363}$$

7.670 Reaction r670

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL10LU dissociates to CG and DiL10UU

Reaction equation



Reactant

Table 2013: Properties of each reactant.

Id	Name	SBO
DiL10LU	DiL10LU	

Modifier

Table 2014: Properties of each modifier.

Id	Name	SBO
DiL10LU	DiL10LU	

Products

Table 2015: Properties of each product.

Id	Name	SBO
CG	CG	
DiL10UU	DiL10UU	

Kinetic Law

Derived unit contains undeclared units

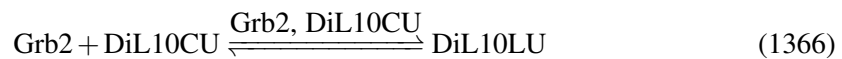
$$v_{670} = k_{u45} \cdot [\text{DiL10LU}] \quad (1365)$$

7.671 Reaction r671

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL10CU bind yielding DiL10LU

Reaction equation



Reactants

Table 2016: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL10CU	DiL10CU	

Modifiers

Table 2017: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL10CU	DiL10CU	

Product

Table 2018: Properties of each product.

Id	Name	SBO
DiL10LU	DiL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{671} = kbcg \cdot [Grb2] \cdot [DiL10CU] \tag{1367}$$

7.672 Reaction r672

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL10LU dissociates to Grb2 and DiL10CU

Reaction equation



Reactant

Table 2019: Properties of each reactant.

Id	Name	SBO
DiL10LU	DiL10LU	

Modifier

Table 2020: Properties of each modifier.

Id	Name	SBO
DiL10LU	DiL10LU	

Products

Table 2021: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL10CU	DiL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{672} = kucg \cdot [DiL10LU] \tag{1369}$$

7.673 Reaction r673

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL01UU bind yielding DiL01UG

Reaction equation



Reactants

Table 2022: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL01UU	DiL01UU	

Modifiers

Table 2023: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL01UU	DiL01UU	

Product

Table 2024: Properties of each product.

Id	Name	SBO
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{673} = kb68 \cdot [Grb2] \cdot [DiL01UU]$$

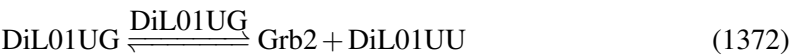
(1371)

7.674 Reaction r674

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL01UG dissociates to Grb2 and DiL01UU

Reaction equation



Reactant

Table 2025: Properties of each reactant.

Id	Name	SBO
DiL01UG	DiL01UG	

Modifier

Table 2026: Properties of each modifier.

Id	Name	SBO
DiL01UG	DiL01UG	

Products

Table 2027: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{674} = ku_{68} \cdot [DiL01UG]$$

(1373)

7.675 Reaction r675

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL01UU bind yielding DiL01UL

Reaction equation



Reactants

Table 2028: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL01UU	DiL01UU	

Modifiers

Table 2029: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL01UU	DiL01UU	

Product

Table 2030: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{675} = k_{b68} \cdot [CG] \cdot [DiL01UU]$$

(1375)

7.676 Reaction r676

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL01UL dissociates to CG and DiL01UU

Reaction equation



Reactant

Table 2031: Properties of each reactant.

Id	Name	SBO
DiL01UL	DiL01UL	

Modifier

Table 2032: Properties of each modifier.

Id	Name	SBO
DiL01UL	DiL01UL	

Products

Table 2033: Properties of each product.

Id	Name	SBO
CG	CG	
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{676} = ku_{68} \cdot [DiL01UL] \tag{1377}$$

7.677 Reaction r677

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL01UG bind yielding DiL01UL

Reaction equation



Reactants

Table 2034: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL01UG	DiL01UG	

Modifiers

Table 2035: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL01UG	DiL01UG	

Product

Table 2036: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{677} = k_{bcg} \cdot [Cbl] \cdot [DiL01UG] \tag{1379}$$

7.678 Reaction r678

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL01UL dissociates to Cbl and DiL01UG

Reaction equation



Reactant

Table 2037: Properties of each reactant.

Id	Name	SBO
DiL01UL	DiL01UL	

Modifier

Table 2038: Properties of each modifier.

Id	Name	SBO
DiL01UL	DiL01UL	

Products

Table 2039: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{678} = kucg \cdot [DiL01UL] \tag{1381}$$

7.679 Reaction r679

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL11UU bind yielding DiL11CU

Reaction equation



Reactants

Table 2040: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL11UU	DiL11UU	

Modifiers

Table 2041: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL11UU	DiL11UU	

Product

Table 2042: Properties of each product.

Id	Name	SBO
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{679} = kb45 \cdot [Cbl] \cdot [DiL11UU]$$

(1383)

7.680 Reaction r680

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11CU dissociates to Cbl and DiL11UU

Reaction equation



Reactant

Table 2043: Properties of each reactant.

Id	Name	SBO
DiL11CU	DiL11CU	

Modifier

Table 2044: Properties of each modifier.

Id	Name	SBO
DiL11CU	DiL11CU	

Products

Table 2045: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{680} = ku45 \cdot [DiL11CU] \tag{1385}$$

7.681 Reaction r681

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL11UU bind yielding DiL11LU

Reaction equation



Reactants

Table 2046: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL11UU	DiL11UU	

Modifiers

Table 2047: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL11UU	DiL11UU	

Product

Table 2048: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{681} = kb45 \cdot [CG] \cdot [DiL11UU]$$

(1387)

7.682 Reaction r682

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LU dissociates to CG and DiL11UU

Reaction equation



Reactant

Table 2049: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifier

Table 2050: Properties of each modifier.

Id	Name	SBO
DiL11LU	DiL11LU	

Products

Table 2051: Properties of each product.

Id	Name	SBO
CG	CG	
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{682} = ku45 \cdot [DiL11LU] \tag{1389}$$

7.683 Reaction r683

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL11UU bind yielding DiL11UG

Reaction equation



Reactants

Table 2052: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL11UU	DiL11UU	

Modifiers

Table 2053: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL11UU	DiL11UU	

Product

Table 2054: Properties of each product.

Id	Name	SBO
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

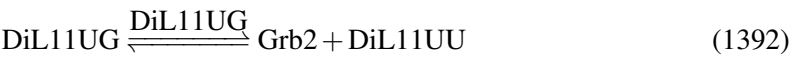
$$v_{683} = kb_{68} \cdot [Grb2] \cdot [DiL11UU] \tag{1391}$$

7.684 Reaction r684

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11UG dissociates to Grb2 and DiL11UU

Reaction equation



Reactant

Table 2055: Properties of each reactant.

Id	Name	SBO
DiL11UG	DiL11UG	

Modifier

Table 2056: Properties of each modifier.

Id	Name	SBO
DiL11UG	DiL11UG	

Products

Table 2057: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{684} = ku_{68} \cdot [DiL11UG]$$

(1393)

7.685 Reaction r685

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL11UU bind yielding DiL11UL

Reaction equation



Reactants

Table 2058: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL11UU	DiL11UU	

Modifiers

Table 2059: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL11UU	DiL11UU	

Product

Table 2060: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{685} = kb_{68} \cdot [CG] \cdot [DiL11UU] \tag{1395}$$

7.686 Reaction r686

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11UL dissociates to CG and DiL11UU

Reaction equation



Reactant

Table 2061: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifier

Table 2062: Properties of each modifier.

Id	Name	SBO
DiL11UL	DiL11UL	

Products

Table 2063: Properties of each product.

Id	Name	SBO
CG	CG	
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{686} = k_{u68} \cdot [DiL11UL] \tag{1397}$$

7.687 Reaction r687

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL11CU bind yielding DiL11LU

Reaction equation



Reactants

Table 2064: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL11CU	DiL11CU	

Modifiers

Table 2065: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL11CU	DiL11CU	

Product

Table 2066: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{687} = kbcg \cdot [Grb2] \cdot [DiL11CU]$$

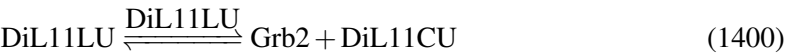
(1399)

7.688 Reaction r688

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LU dissociates to Grb2 and DiL11CU

Reaction equation



Reactant

Table 2067: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifier

Table 2068: Properties of each modifier.

Id	Name	SBO
DiL11LU	DiL11LU	

Products

Table 2069: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{688} = kucg \cdot [DiL11LU] \tag{1401}$$

7.689 Reaction r689

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL11CU bind yielding DiL11CG

Reaction equation



Reactants

Table 2070: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL11CU	DiL11CU	

Modifiers

Table 2071: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL11CU	DiL11CU	

Product

Table 2072: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

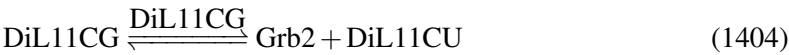
$$v_{689} = kb_{68} \cdot [Grb2] \cdot [DiL11CU] \tag{1403}$$

7.690 Reaction r690

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11CG dissociates to Grb2 and DiL11CU

Reaction equation



Reactant

Table 2073: Properties of each reactant.

Id	Name	SBO
DiL11CG	DiL11CG	

Modifier

Table 2074: Properties of each modifier.

Id	Name	SBO
DiL11CG	DiL11CG	

Products

Table 2075: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{690} = k_{u68} \cdot [DiL11CG]$$

(1405)

7.691 Reaction r691

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL11LU bind yielding DiL11LG

Reaction equation



Reactants

Table 2076: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL11LU	DiL11LU	

Modifiers

Table 2077: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL11LU	DiL11LU	

Product

Table 2078: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{691} = kb68 \cdot [Grb2] \cdot [DiL11LU] \tag{1407}$$

7.692 Reaction r692

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LG dissociates to Grb2 and DiL11LU

Reaction equation



Reactant

Table 2079: Properties of each reactant.

Id	Name	SBO
DiL11LG	DiL11LG	

Modifier

Table 2080: Properties of each modifier.

Id	Name	SBO
DiL11LG	DiL11LG	

Products

Table 2081: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{692} = ku_{68} \cdot [DiL11LG] \tag{1409}$$

7.693 Reaction r693

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11LU transforms in (singly-bound -> doubly-bound) DiL11CC

Reaction equation



Reactant

Table 2082: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifier

Table 2083: Properties of each modifier.

Id	Name	SBO
DiL11LU	DiL11LU	

Product

Table 2084: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{693} = kb68P \cdot [DiL11LU] \tag{1411}$$

7.694 Reaction r694

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CC tranforms in (doubly-bound -> singly-bound) DiL11LU

Reaction equation



Reactant

Table 2085: Properties of each reactant.

Id	Name	SBO
DiL11CC	DiL11CC	

Modifier

Table 2086: Properties of each modifier.

Id	Name	SBO
DiL11CC	DiL11CC	

Product

Table 2087: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{694} = k_{u68M} \cdot [\text{DiL11CC}] \quad (1413)$$

7.695 Reaction r695

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL11UG bind yielding DiL11CG

Reaction equation



Reactants

Table 2088: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL11UG	DiL11UG	

Modifiers

Table 2089: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL11UG	DiL11UG	

Product

Table 2090: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{695} = kb45 \cdot [Cbl] \cdot [DiL11UG] \quad (1415)$$

7.696 Reaction r696

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11CG dissociates to Cbl and DiL11UG

Reaction equation**Reactant**

Table 2091: Properties of each reactant.

Id	Name	SBO
DiL11CG	DiL11CG	

Modifier

Table 2092: Properties of each modifier.

Id	Name	SBO
DiL11CG	DiL11CG	

Products

Table 2093: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{696} = ku45 \cdot [DiL11CG] \quad (1417)$$

7.697 Reaction r697

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL11UG bind yielding DiL11LG

Reaction equation



Reactants

Table 2094: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL11UG	DiL11UG	

Modifiers

Table 2095: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL11UG	DiL11UG	

Product

Table 2096: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{697} = k_{b45} \cdot [CG] \cdot [DiL11UG] \quad (1419)$$

7.698 Reaction r698

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LG dissociates to CG and DiL11UG

Reaction equation



Reactant

Table 2097: Properties of each reactant.

Id	Name	SBO
DiL11LG	DiL11LG	

Modifier

Table 2098: Properties of each modifier.

Id	Name	SBO
DiL11LG	DiL11LG	

Products

Table 2099: Properties of each product.

Id	Name	SBO
CG	CG	
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{698} = k_{u45} \cdot [\text{DiL11LG}] \tag{1421}$$

7.699 Reaction r699

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL11UG bind yielding DiL11UL

Reaction equation



Reactants

Table 2100: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL11UG	DiL11UG	

Modifiers

Table 2101: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL11UG	DiL11UG	

Product

Table 2102: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{699} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{DiL11UG}] \tag{1423}$$

7.700 Reaction r700

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11UL dissociates to Cbl and DiL11UG

Reaction equation



Reactant

Table 2103: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifier

Table 2104: Properties of each modifier.

Id	Name	SBO
DiL11UL	DiL11UL	

Products

Table 2105: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$v_{700} = kucg \cdot [\text{DiL11UL}]$

(1425)

7.701 Reaction r701

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UL transforms in (singly-bound -> doubly-bound) DiL11CC

Reaction equation



Reactant

Table 2106: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifier

Table 2107: Properties of each modifier.

Id	Name	SBO
DiL11UL	DiL11UL	

Product

Table 2108: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{701} = \text{kb45P} \cdot [\text{DiL11UL}]$$

(1427)

7.702 Reaction r702

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CC tranforms in (doubly-bound -> singly-bound) DiL11UL

Reaction equation



Reactant

Table 2109: Properties of each reactant.

Id	Name	SBO
DiL11CC	DiL11CC	

Modifier

Table 2110: Properties of each modifier.

Id	Name	SBO
DiL11CC	DiL11CC	

Product

Table 2111: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{702} = ku_{45M} \cdot [DiL11CC] \tag{1429}$$

7.703 Reaction r703

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CG transforms in (Cbl bind Grb2 directly) DiL11CC

Reaction equation



Reactant

Table 2112: Properties of each reactant.

Id	Name	SBO
DiL11CG	DiL11CG	

Modifier

Table 2113: Properties of each modifier.

Id	Name	SBO
DiL11CG	DiL11CG	

Product

Table 2114: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{703} = k_{bcgP} \cdot [DiL11CG] \tag{1431}$$

7.704 Reaction r_{704}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DiL11CG

Reaction equation



Reactant

Table 2115: Properties of each reactant.

Id	Name	SBO
DiL11CC	DiL11CC	

Modifier

Table 2116: Properties of each modifier.

Id	Name	SBO
DiL11CC	DiL11CC	

Product

Table 2117: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{704} = kucgM \cdot [DiL11CC]$$

(1433)

7.705 Reaction r705

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL11CG bind yielding DiL11LG

Reaction equation



Reactants

Table 2118: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL11CG	DiL11CG	

Modifiers

Table 2119: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL11CG	DiL11CG	

Product

Table 2120: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{705} = kbcg \cdot [Grb2] \cdot [DiL11CG] \tag{1435}$$

7.706 Reaction r706

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LG dissociates to Grb2 and DiL11CG

Reaction equation



Reactant

Table 2121: Properties of each reactant.

Id	Name	SBO
DiL11LG	DiL11LG	

Modifier

Table 2122: Properties of each modifier.

Id	Name	SBO
DiL11LG	DiL11LG	

Products

Table 2123: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{706} = kucg \cdot [DiL11LG]$$

(1437)

7.707 Reaction r707

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL02UU bind yielding DiL02UG

Reaction equation



Reactants

Table 2124: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL02UU	DiL02UU	

Modifiers

Table 2125: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL02UU	DiL02UU	

Product

Table 2126: Properties of each product.

Id	Name	SBO
DiL02UG	DiL02UG	

Kinetic Law

Derived unit contains undeclared units

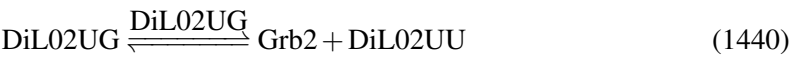
$$v_{707} = 2 \cdot kb68 \cdot [Grb2] \cdot [DiL02UU] \tag{1439}$$

7.708 Reaction r708

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL02UG dissociates to Grb2 and DiL02UU

Reaction equation



Reactant

Table 2127: Properties of each reactant.

Id	Name	SBO
DiL02UG	DiL02UG	

Modifier

Table 2128: Properties of each modifier.

Id	Name	SBO
DiL02UG	DiL02UG	

Products

Table 2129: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL02UU	DiL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{708} = ku_{68} \cdot [DiL02UG] \tag{1441}$$

7.709 Reaction r709

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL02UU bind yielding DiL02UL

Reaction equation



Reactants

Table 2130: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL02UU	DiL02UU	

Modifiers

Table 2131: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL02UU	DiL02UU	

Product

Table 2132: Properties of each product.

Id	Name	SBO
DiL02UL	DiL02UL	

Kinetic Law

Derived unit contains undeclared units

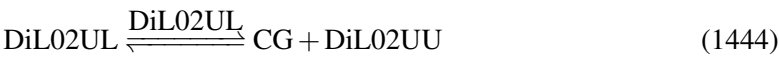
$$v_{709} = 2 \cdot kb68 \cdot [CG] \cdot [DiL02UU] \tag{1443}$$

7.710 Reaction r710

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL02UL dissociates to CG and DiL02UU

Reaction equation



Reactant

Table 2133: Properties of each reactant.

Id	Name	SBO
DiL02UL	DiL02UL	

Modifier

Table 2134: Properties of each modifier.

Id	Name	SBO
DiL02UL	DiL02UL	

Products

Table 2135: Properties of each product.

Id	Name	SBO
CG	CG	
DiL02UU	DiL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{710} = ku68 \cdot [DiL02UL]$$

(1445)

7.711 Reaction r711

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL02UG bind yielding DiL02UL

Reaction equation



Reactants

Table 2136: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL02UG	DiL02UG	

Modifiers

Table 2137: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL02UG	DiL02UG	

Product

Table 2138: Properties of each product.

Id	Name	SBO
DiL02UL	DiL02UL	

Kinetic Law

Derived unit contains undeclared units

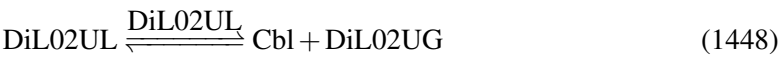
$$v_{711} = kbcg \cdot [Cbl] \cdot [DiL02UG] \tag{1447}$$

7.712 Reaction r712

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL02UL dissociates to Cbl and DiL02UG

Reaction equation



Reactant

Table 2139: Properties of each reactant.

Id	Name	SBO
DiL02UL	DiL02UL	

Modifier

Table 2140: Properties of each modifier.

Id	Name	SBO
DiL02UL	DiL02UL	

Products

Table 2141: Properties of each product.

Id	Name	SBO
Cb1	Cbl	
DiL02UG	DiL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{712} = kucg \cdot [DiL02UL] \tag{1449}$$

7.713 Reaction r713

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL12UU bind yielding DiL12CU

Reaction equation



Reactants

Table 2142: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
DiL12UU	DiL12UU	

Modifiers

Table 2143: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL12UU	DiL12UU	

Product

Table 2144: Properties of each product.

Id	Name	SBO
DiL12CU	DiL12CU	

Kinetic Law

Derived unit contains undeclared units

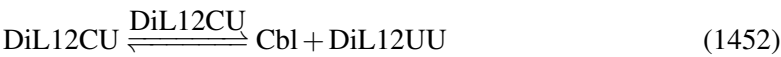
$$v_{713} = kb45 \cdot [Cbl] \cdot [DiL12UU] \tag{1451}$$

7.714 Reaction r714

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12CU dissociates to Cbl and DiL12UU

Reaction equation



Reactant

Table 2145: Properties of each reactant.

Id	Name	SBO
DiL12CU	DiL12CU	

Modifier

Table 2146: Properties of each modifier.

Id	Name	SBO
DiL12CU	DiL12CU	

Products

Table 2147: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{714} = ku45 \cdot [DiL12CU]$$

(1453)

7.715 Reaction r715

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL12UU bind yielding DiL12LU

Reaction equation



Reactants

Table 2148: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL12UU	DiL12UU	

Modifiers

Table 2149: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL12UU	DiL12UU	

Product

Table 2150: Properties of each product.

Id	Name	SBO
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

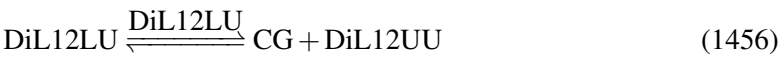
$$v_{715} = kb45 \cdot [CG] \cdot [DiL12UU] \tag{1455}$$

7.716 Reaction r716

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LU dissociates to CG and DiL12UU

Reaction equation



Reactant

Table 2151: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifier

Table 2152: Properties of each modifier.

Id	Name	SBO
DiL12LU	DiL12LU	

Products

Table 2153: Properties of each product.

Id	Name	SBO
CG	CG	
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{716} = ku45 \cdot [DiL12LU] \tag{1457}$$

7.717 Reaction r717

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL12UU bind yielding DiL12UG

Reaction equation



Reactants

Table 2154: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL12UU	DiL12UU	

Modifiers

Table 2155: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL12UU	DiL12UU	

Product

Table 2156: Properties of each product.

Id	Name	SBO
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

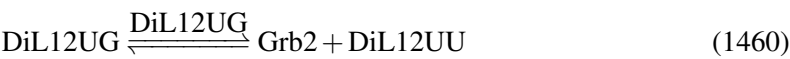
$$v_{717} = 2 \cdot kb68 \cdot [Grb2] \cdot [DiL12UU] \tag{1459}$$

7.718 Reaction r718

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12UG dissociates to Grb2 and DiL12UU

Reaction equation



Reactant

Table 2157: Properties of each reactant.

Id	Name	SBO
DiL12UG	DiL12UG	

Modifier

Table 2158: Properties of each modifier.

Id	Name	SBO
DiL12UG	DiL12UG	

Products

Table 2159: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{718} = ku_{68} \cdot [DiL12UG] \tag{1461}$$

7.719 Reaction r719

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL12UU bind yielding DiL12UL

Reaction equation



Reactants

Table 2160: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL12UU	DiL12UU	

Modifiers

Table 2161: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL12UU	DiL12UU	

Product

Table 2162: Properties of each product.

Id	Name	SBO
DiL12UL	DiL12UL	

Kinetic Law

Derived unit contains undeclared units

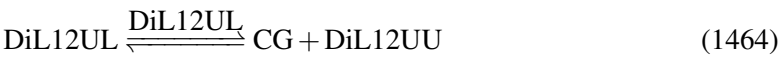
$$v_{719} = 2 \cdot kb68 \cdot [CG] \cdot [DiL12UU] \tag{1463}$$

7.720 Reaction r720

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12UL dissociates to CG and DiL12UU

Reaction equation



Reactant

Table 2163: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 2164: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Products

Table 2165: Properties of each product.

Id	Name	SBO
CG	CG	
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{720} = ku68 \cdot [DiL12UL] \tag{1465}$$

7.721 Reaction r721

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL12CU bind yielding DiL12LU

Reaction equation



Reactants

Table 2166: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL12CU	DiL12CU	

Modifiers

Table 2167: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL12CU	DiL12CU	

Product

Table 2168: Properties of each product.

Id	Name	SBO
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{721} = kbcg \cdot [Grb2] \cdot [DiL12CU] \tag{1467}$$

7.722 Reaction r722

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LU dissociates to Grb2 and DiL12CU

Reaction equation



Reactant

Table 2169: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifier

Table 2170: Properties of each modifier.

Id	Name	SBO
DiL12LU	DiL12LU	

Products

Table 2171: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL12CU	DiL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{722} = kucg \cdot [DiL12LU] \tag{1469}$$

7.723 Reaction r723

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL12CU bind yielding DiL12CG

Reaction equation



Reactants

Table 2172: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL12CU	DiL12CU	

Modifiers

Table 2173: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL12CU	DiL12CU	

Product

Table 2174: Properties of each product.

Id	Name	SBO
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

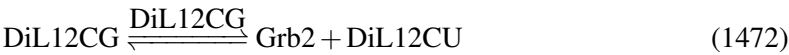
$$v_{723} = 2 \cdot kb68 \cdot [Grb2] \cdot [DiL12CU] \tag{1471}$$

7.724 Reaction r724

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12CG dissociates to Grb2 and DiL12CU

Reaction equation



Reactant

Table 2175: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifier

Table 2176: Properties of each modifier.

Id	Name	SBO
DiL12CG	DiL12CG	

Products

Table 2177: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL12CU	DiL12CU	

Kinetic Law

Derived unit contains undeclared units

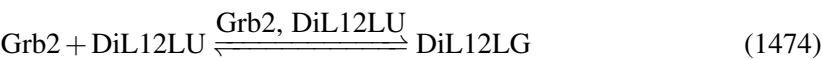
$$v_{724} = ku68 \cdot [DiL12CG] \tag{1473}$$

7.725 Reaction r725

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL12LU bind yielding DiL12LG

Reaction equation



Reactants

Table 2178: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL12LU	DiL12LU	

Modifiers

Table 2179: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL12LU	DiL12LU	

Product

Table 2180: Properties of each product.

Id	Name	SBO
DiL12LG	DiL12LG	

Kinetic Law

Derived unit contains undeclared units

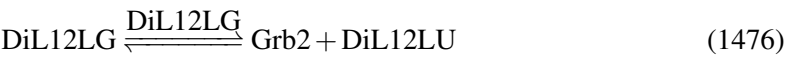
$$v_{725} = 2 \cdot kb68 \cdot [Grb2] \cdot [DiL12LU] \tag{1475}$$

7.726 Reaction r726

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LG dissociates to Grb2 and DiL12LU

Reaction equation



Reactant

Table 2181: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifier

Table 2182: Properties of each modifier.

Id	Name	SBO
DiL12LG	DiL12LG	

Products

Table 2183: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{726} = ku68 \cdot [DiL12LG]$$

(1477)

7.727 Reaction r727

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12LU transforms in (singly-bound -> doubly-bound) DiL12CC

Reaction equation



Reactant

Table 2184: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifier

Table 2185: Properties of each modifier.

Id	Name	SBO
DiL12LU	DiL12LU	

Product

Table 2186: Properties of each product.

Id	Name	SBO
DiL12CC	DiL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{727} = 2 \cdot kb68P \cdot [DiL12LU] \tag{1479}$$

7.728 Reaction r728

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CC tranforms in (doubly-bound -> singly-bound) DiL12LU

Reaction equation



Reactant

Table 2187: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifier

Table 2188: Properties of each modifier.

Id	Name	SBO
DiL12CC	DiL12CC	

Product

Table 2189: Properties of each product.

Id	Name	SBO
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{728} = ku68M \cdot [DiL12CC] \tag{1481}$$

7.729 Reaction r729

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL12UG bind yielding DiL12CG

Reaction equation



Reactants

Table 2190: Properties of each reactant.

Id	Name	SBO
Cb1	Cbl	
DiL12UG	DiL12UG	

Modifiers

Table 2191: Properties of each modifier.

Id	Name	SBO
Cb1	Cbl	
DiL12UG	DiL12UG	

Product

Table 2192: Properties of each product.

Id	Name	SBO
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{729} = kb45 \cdot [Cbl] \cdot [DiL12UG] \quad (1483)$$

7.730 Reaction r730

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12CG dissociates to Cbl and DiL12UG

Reaction equation**Reactant**

Table 2193: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifier

Table 2194: Properties of each modifier.

Id	Name	SBO
DiL12CG	DiL12CG	

Products

Table 2195: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{730} = k_{u45} \cdot [\text{DiL12CG}] \quad (1485)$$

7.731 Reaction r731

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DiL12UG bind yielding DiL12LG

Reaction equation



Reactants

Table 2196: Properties of each reactant.

Id	Name	SBO
CG	CG	
DiL12UG	DiL12UG	

Modifiers

Table 2197: Properties of each modifier.

Id	Name	SBO
CG	CG	
DiL12UG	DiL12UG	

Product

Table 2198: Properties of each product.

Id	Name	SBO
DiL12LG	DiL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{731} = \text{kb45} \cdot [\text{CG}] \cdot [\text{DiL12UG}]$$

(1487)

7.732 Reaction r732

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LG dissociates to CG and DiL12UG

Reaction equation



Reactant

Table 2199: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifier

Table 2200: Properties of each modifier.

Id	Name	SBO
DiL12LG	DiL12LG	

Products

Table 2201: Properties of each product.

Id	Name	SBO
CG	CG	
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{732} = k_{u45} \cdot [\text{DiL12LG}] \tag{1489}$$

7.733 Reaction r733

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DiL12UG bind yielding DiL12UL

Reaction equation



Reactants

Table 2202: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DiL12UG	DiL12UG	

Modifiers

Table 2203: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DiL12UG	DiL12UG	

Product

Table 2204: Properties of each product.

Id	Name	SBO
DiL12UL	DiL12UL	

Kinetic Law

Derived unit contains undeclared units

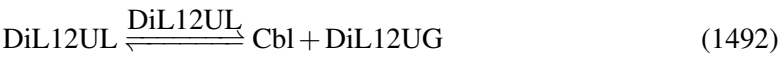
$$v_{733} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{DiL12UG}] \tag{1491}$$

7.734 Reaction r734

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12UL dissociates to Cbl and DiL12UG

Reaction equation



Reactant

Table 2205: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 2206: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Products

Table 2207: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{734} = kucg \cdot [\text{DiL12UL}]$$

(1493)

7.735 Reaction r735

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UL transforms in (singly-bound -> doubly-bound) DiL12CC

Reaction equation



Reactant

Table 2208: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 2209: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Product

Table 2210: Properties of each product.

Id	Name	SBO
DiL12CC	DiL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{735} = \text{kb45P} \cdot [\text{DiL12UL}]$$

(1495)

7.736 Reaction r736

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CC tranforms in (doubly-bound -> singly-bound) DiL12UL

Reaction equation



Reactant

Table 2211: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifier

Table 2212: Properties of each modifier.

Id	Name	SBO
DiL12CC	DiL12CC	

Product

Table 2213: Properties of each product.

Id	Name	SBO
DiL12UL	DiL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{736} = ku_{45M} \cdot [DiL12CC]$$

(1497)

7.737 Reaction r737

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CG transforms in (Cbl bind Grb2 directly) DiL12CC

Reaction equation



Reactant

Table 2214: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifier

Table 2215: Properties of each modifier.

Id	Name	SBO
DiL12CG	DiL12CG	

Product

Table 2216: Properties of each product.

Id	Name	SBO
DiL12CC	DiL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{737} = \text{kbcgP} \cdot [\text{DiL12CG}] \tag{1499}$$

7.738 Reaction r_{738}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DiL12CG

Reaction equation



Reactant

Table 2217: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifier

Table 2218: Properties of each modifier.

Id	Name	SBO
DiL12CC	DiL12CC	

Product

Table 2219: Properties of each product.

Id	Name	SBO
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{738} = kucgM \cdot [DiL12CC] \tag{1501}$$

7.739 Reaction r739

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DiL12CG bind yielding DiL12LG

Reaction equation



Reactants

Table 2220: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DiL12CG	DiL12CG	

Modifiers

Table 2221: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DiL12CG	DiL12CG	

Product

Table 2222: Properties of each product.

Id	Name	SBO
DiL12LG	DiL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{739} = kbcg \cdot [Grb2] \cdot [DiL12CG]$$

(1503)

7.740 Reaction r740

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LG dissociates to Grb2 and DiL12CG

Reaction equation



Reactant

Table 2223: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifier

Table 2224: Properties of each modifier.

Id	Name	SBO
DiL12LG	DiL12LG	

Products

Table 2225: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{740} = kucg \cdot [DiL12LG] \tag{1505}$$

7.741 Reaction r741

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL10UU bind yielding DaL10CU

Reaction equation



Reactants

Table 2226: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL10UU	DaL10UU	

Modifiers

Table 2227: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL10UU	DaL10UU	

Product

Table 2228: Properties of each product.

Id	Name	SBO
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{741} = kb45 \cdot [Cbl] \cdot [DaL10UU] \tag{1507}$$

7.742 Reaction r742

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL10CU dissociates to Cbl and DaL10UU

Reaction equation



Reactant

Table 2229: Properties of each reactant.

Id	Name	SBO
DaL10CU	DaL10CU	

Modifier

Table 2230: Properties of each modifier.

Id	Name	SBO
DaL10CU	DaL10CU	

Products

Table 2231: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{742} = k_{u45} \cdot [\text{DaL10CU}]$$

(1509)

7.743 Reaction r743

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL10UU bind yielding DaL10LU

Reaction equation



Reactants

Table 2232: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL10UU	DaL10UU	

Modifiers

Table 2233: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL10UU	DaL10UU	

Product

Table 2234: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

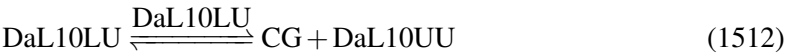
$$v_{743} = kb_{45} \cdot [CG] \cdot [DaL10UU] \tag{1511}$$

7.744 Reaction r744

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL10LU dissociates to CG and DaL10UU

Reaction equation



Reactant

Table 2235: Properties of each reactant.

Id	Name	SBO
DaL10LU	DaL10LU	

Modifier

Table 2236: Properties of each modifier.

Id	Name	SBO
DaL10LU	DaL10LU	

Products

Table 2237: Properties of each product.

Id	Name	SBO
CG	CG	
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{744} = k_{u45} \cdot [\text{DaL10LU}]$$

(1513)

7.745 Reaction r745

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL10CU bind yielding DaL10LU

Reaction equation



Reactants

Table 2238: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL10CU	DaL10CU	

Modifiers

Table 2239: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL10CU	DaL10CU	

Product

Table 2240: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{745} = kbcg \cdot [Grb2] \cdot [DaL10CU] \tag{1515}$$

7.746 Reaction r746

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL10LU dissociates to Grb2 and DaL10CU

Reaction equation



Reactant

Table 2241: Properties of each reactant.

Id	Name	SBO
DaL10LU	DaL10LU	

Modifier

Table 2242: Properties of each modifier.

Id	Name	SBO
DaL10LU	DaL10LU	

Products

Table 2243: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{746} = kucg \cdot [DaL10LU]$$

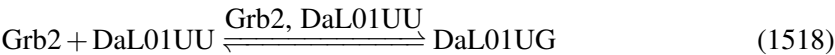
(1517)

7.747 Reaction r747

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL01UU bind yielding DaL01UG

Reaction equation



Reactants

Table 2244: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL01UU	DaL01UU	

Modifiers

Table 2245: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL01UU	DaL01UU	

Product

Table 2246: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{747} = kb68 \cdot [Grb2] \cdot [DaL01UU] \tag{1519}$$

7.748 Reaction r748

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL01UG dissociates to Grb2 and DaL01UU

Reaction equation



Reactant

Table 2247: Properties of each reactant.

Id	Name	SBO
DaL01UG	DaL01UG	

Modifier

Table 2248: Properties of each modifier.

Id	Name	SBO
DaL01UG	DaL01UG	

Products

Table 2249: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{748} = k_{u68} \cdot [\text{DaL01UG}]$$

(1521)

7.749 Reaction r749

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL01UU bind yielding DaL01UL

Reaction equation



Reactants

Table 2250: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL01UU	DaL01UU	

Modifiers

Table 2251: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL01UU	DaL01UU	

Product

Table 2252: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

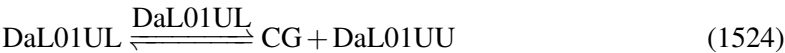
$$v_{749} = kb68 \cdot [CG] \cdot [DaL01UU] \tag{1523}$$

7.750 Reaction r750

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL01UL dissociates to CG and DaL01UU

Reaction equation



Reactant

Table 2253: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 2254: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Products

Table 2255: Properties of each product.

Id	Name	SBO
CG	CG	
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{750} = ku_{68} \cdot [DaL01UL]$$

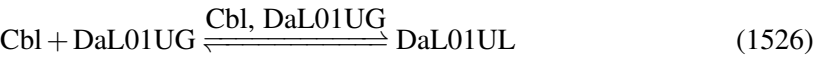
(1525)

7.751 Reaction r751

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL01UG bind yielding DaL01UL

Reaction equation



Reactants

Table 2256: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL01UG	DaL01UG	

Modifiers

Table 2257: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL01UG	DaL01UG	

Product

Table 2258: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

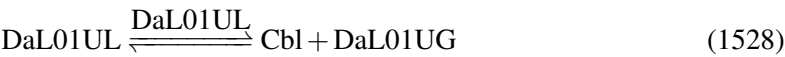
$$v_{751} = kbcg \cdot [Cbl] \cdot [DaL01UG] \tag{1527}$$

7.752 Reaction r752

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL01UL dissociates to Cbl and DaL01UG

Reaction equation



Reactant

Table 2259: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 2260: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Products

Table 2261: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{752} = kucg \cdot [DaL01UL] \tag{1529}$$

7.753 Reaction r753

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL11UU bind yielding DaL11CU

Reaction equation



Reactants

Table 2262: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL11UU	DaL11UU	

Modifiers

Table 2263: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL11UU	DaL11UU	

Product

Table 2264: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

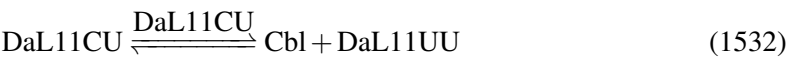
$$v_{753} = kb45 \cdot [Cbl] \cdot [DaL11UU] \tag{1531}$$

7.754 Reaction r754

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11CU dissociates to Cbl and DaL11UU

Reaction equation



Reactant

Table 2265: Properties of each reactant.

Id	Name	SBO
DaL11CU	DaL11CU	

Modifier

Table 2266: Properties of each modifier.

Id	Name	SBO
DaL11CU	DaL11CU	

Products

Table 2267: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{754} = k_{u45} \cdot [\text{DaL11CU}] \tag{1533}$$

7.755 Reaction r755

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL11UU bind yielding DaL11LU

Reaction equation



Reactants

Table 2268: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL11UU	DaL11UU	

Modifiers

Table 2269: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL11UU	DaL11UU	

Product

Table 2270: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

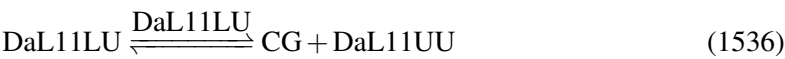
$$v_{755} = kb45 \cdot [CG] \cdot [DaL11UU] \tag{1535}$$

7.756 Reaction r756

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LU dissociates to CG and DaL11UU

Reaction equation



Reactant

Table 2271: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 2272: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Products

Table 2273: Properties of each product.

Id	Name	SBO
CG	CG	
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{756} = k_{u45} \cdot [\text{DaL11LU}] \tag{1537}$$

7.757 Reaction r757

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL11UU bind yielding DaL11UG

Reaction equation



Reactants

Table 2274: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL11UU	DaL11UU	

Modifiers

Table 2275: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL11UU	DaL11UU	

Product

Table 2276: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{757} = kb68 \cdot [Grb2] \cdot [DaL11UU]$$

(1539)

7.758 Reaction r758

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11UG dissociates to Grb2 and DaL11UU

Reaction equation



Reactant

Table 2277: Properties of each reactant.

Id	Name	SBO
DaL11UG	DaL11UG	

Modifier

Table 2278: Properties of each modifier.

Id	Name	SBO
DaL11UG	DaL11UG	

Products

Table 2279: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{758} = k_{u68} \cdot [\text{DaL11UG}] \tag{1541}$$

7.759 Reaction r759

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL11UU bind yielding DaL11UL

Reaction equation



Reactants

Table 2280: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL11UU	DaL11UU	

Modifiers

Table 2281: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL11UU	DaL11UU	

Product

Table 2282: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

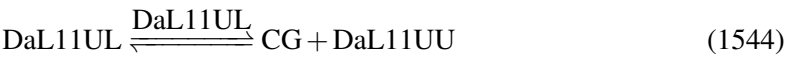
$$v_{759} = kb68 \cdot [CG] \cdot [DaL11UU] \tag{1543}$$

7.760 Reaction r760

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11UL dissociates to CG and DaL11UU

Reaction equation



Reactant

Table 2283: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 2284: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Products

Table 2285: Properties of each product.

Id	Name	SBO
CG	CG	
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{760} = ku_{68} \cdot [DaL11UL] \tag{1545}$$

7.761 Reaction r761

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL11CU bind yielding DaL11LU

Reaction equation



Reactants

Table 2286: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL11CU	DaL11CU	

Modifiers

Table 2287: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL11CU	DaL11CU	

Product

Table 2288: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{761} = kbcg \cdot [Grb2] \cdot [DaL11CU]$$

(1547)

7.762 Reaction r762

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LU dissociates to Grb2 and DaL11CU

Reaction equation



Reactant

Table 2289: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 2290: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Products

Table 2291: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{762} = kucg \cdot [DaL11LU]$$

(1549)

7.763 Reaction r763

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL11CU bind yielding DaL11CG

Reaction equation



Reactants

Table 2292: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL11CU	DaL11CU	

Modifiers

Table 2293: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL11CU	DaL11CU	

Product

Table 2294: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{763} = kb68 \cdot [Grb2] \cdot [DaL11CU] \tag{1551}$$

7.764 Reaction r764

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11CG dissociates to Grb2 and DaL11CU

Reaction equation



Reactant

Table 2295: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 2296: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Products

Table 2297: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{764} = k_{u68} \cdot [\text{DaL11CG}] \tag{1553}$$

7.765 Reaction r765

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL11LU bind yielding DaL11LG

Reaction equation



Reactants

Table 2298: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL11LU	DaL11LU	

Modifiers

Table 2299: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL11LU	DaL11LU	

Product

Table 2300: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{765} = kb68 \cdot [Grb2] \cdot [DaL11LU] \tag{1555}$$

7.766 Reaction r766

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LG dissociates to Grb2 and DaL11LU

Reaction equation



Reactant

Table 2301: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 2302: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Products

Table 2303: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{766} = ku_{68} \cdot [DaL11LG] \tag{1557}$$

7.767 Reaction r767

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LU transforms in (singly-bound -> doubly-bound) DaL11CC

Reaction equation



Reactant

Table 2304: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 2305: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Product

Table 2306: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{767} = kb68P \cdot [DaL11LU] \tag{1559}$$

7.768 Reaction r768

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CC tranforms in (doubly-bound -> singly-bound) DaL11LU

Reaction equation



Reactant

Table 2307: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 2308: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Product

Table 2309: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{768} = k_{u68M} \cdot [\text{DaL11CC}] \quad (1561)$$

7.769 Reaction r769

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL11UG bind yielding DaL11CG

Reaction equation



Reactants

Table 2310: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL11UG	DaL11UG	

Modifiers

Table 2311: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL11UG	DaL11UG	

Product

Table 2312: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{769} = kb45 \cdot [Cbl] \cdot [DaL11UG] \quad (1563)$$

7.770 Reaction r770

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11CG dissociates to Cbl and DaL11UG

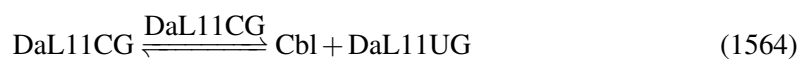
Reaction equation**Reactant**

Table 2313: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 2314: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Products

Table 2315: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{770} = k_{u45} \cdot [\text{DaL11CG}] \quad (1565)$$

7.771 Reaction r_{771}

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL11UG bind yielding DaL11LG

Reaction equation



Reactants

Table 2316: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL11UG	DaL11UG	

Modifiers

Table 2317: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL11UG	DaL11UG	

Product

Table 2318: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{771} = kb45 \cdot [CG] \cdot [DaL11UG]$$

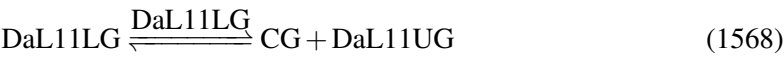
(1567)

7.772 Reaction r772

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LG dissociates to CG and DaL11UG

Reaction equation



Reactant

Table 2319: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 2320: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Products

Table 2321: Properties of each product.

Id	Name	SBO
CG	CG	
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{772} = k_{u45} \cdot [\text{DaL11LG}] \tag{1569}$$

7.773 Reaction r_{773}

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL11UG bind yielding DaL11UL

Reaction equation



Reactants

Table 2322: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL11UG	DaL11UG	

Modifiers

Table 2323: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL11UG	DaL11UG	

Product

Table 2324: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

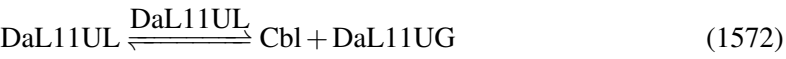
$$v_{773} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{DaL11UG}] \tag{1571}$$

7.774 Reaction r774

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11UL dissociates to Cbl and DaL11UG

Reaction equation



Reactant

Table 2325: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 2326: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Products

Table 2327: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$v_{774} = kucg \cdot [\text{DaL11UL}]$

(1573)

7.775 Reaction r775

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UL transforms in (singly-bound -> doubly-bound) DaL11CC

Reaction equation



Reactant

Table 2328: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 2329: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Product

Table 2330: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{775} = \text{kb45P} \cdot [\text{DaL11UL}]$$

(1575)

7.776 Reaction *r776*

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CC tranforms in (doubly-bound -> singly-bound) DaL11UL

Reaction equation



Reactant

Table 2331: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 2332: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Product

Table 2333: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{776} = ku_{45M} \cdot [DaL11CC] \tag{1577}$$

7.777 Reaction r_{777}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CG transforms in (Cbl bind Grb2 directly) DaL11CC

Reaction equation



Reactant

Table 2334: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 2335: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Product

Table 2336: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{777} = k_{bcgP} \cdot [DaL11CG] \tag{1579}$$

7.778 Reaction r_{778}

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DaL11CG

Reaction equation



Reactant

Table 2337: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 2338: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Product

Table 2339: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{778} = kucgM \cdot [DaL11CC] \tag{1581}$$

7.779 Reaction r_{779}

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL11CG bind yielding DaL11LG

Reaction equation



Reactants

Table 2340: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL11CG	DaL11CG	

Modifiers

Table 2341: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL11CG	DaL11CG	

Product

Table 2342: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{779} = kbcg \cdot [Grb2] \cdot [DaL11CG] \tag{1583}$$

7.780 Reaction r780

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LG dissociates to Grb2 and DaL11CG

Reaction equation



Reactant

Table 2343: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 2344: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Products

Table 2345: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

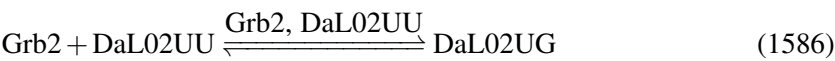
$$v_{780} = kucg \cdot [DaL11LG] \tag{1585}$$

7.781 Reaction r781

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL02UU bind yielding DaL02UG

Reaction equation



Reactants

Table 2346: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL02UU	DaL02UU	

Modifiers

Table 2347: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL02UU	DaL02UU	

Product

Table 2348: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{781} = 2 \cdot kb68 \cdot [Grb2] \cdot [DaL02UU] \tag{1587}$$

7.782 Reaction r782

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL02UG dissociates to Grb2 and DaL02UU

Reaction equation



Reactant

Table 2349: Properties of each reactant.

Id	Name	SBO
DaL02UG	DaL02UG	

Modifier

Table 2350: Properties of each modifier.

Id	Name	SBO
DaL02UG	DaL02UG	

Products

Table 2351: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

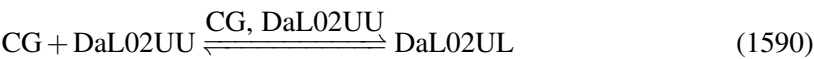
$$v_{782} = k_{u68} \cdot [\text{DaL02UG}] \tag{1589}$$

7.783 Reaction r783

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL02UU bind yielding DaL02UL

Reaction equation



Reactants

Table 2352: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL02UU	DaL02UU	

Modifiers

Table 2353: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL02UU	DaL02UU	

Product

Table 2354: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{783} = 2 \cdot kb68 \cdot [CG] \cdot [DaL02UU]$$

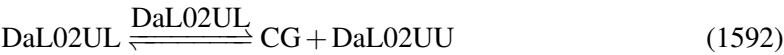
(1591)

7.784 Reaction r784

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL02UL dissociates to CG and DaL02UU

Reaction equation



Reactant

Table 2355: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 2356: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Products

Table 2357: Properties of each product.

Id	Name	SBO
CG	CG	
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

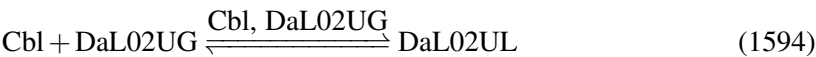
$$v_{784} = k_{u68} \cdot [\text{DaL02UL}] \tag{1593}$$

7.785 Reaction r785

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL02UG bind yielding DaL02UL

Reaction equation



Reactants

Table 2358: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL02UG	DaL02UG	

Modifiers

Table 2359: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL02UG	DaL02UG	

Product

Table 2360: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

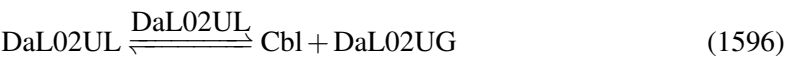
$$v_{785} = kbcg \cdot [Cbl] \cdot [DaL02UG] \tag{1595}$$

7.786 Reaction r786

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL02UL dissociates to Cbl and DaL02UG

Reaction equation



Reactant

Table 2361: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 2362: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Products

Table 2363: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{786} = kucg \cdot [DaL02UL] \tag{1597}$$

7.787 Reaction r787

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL12UU bind yielding DaL12CU

Reaction equation



Reactants

Table 2364: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL12UU	DaL12UU	

Modifiers

Table 2365: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL12UU	DaL12UU	

Product

Table 2366: Properties of each product.

Id	Name	SBO
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

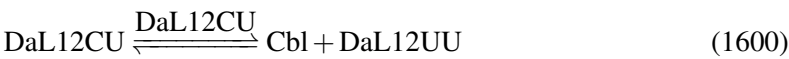
$$v_{787} = kb45 \cdot [Cbl] \cdot [DaL12UU] \tag{1599}$$

7.788 Reaction r788

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12CU dissociates to Cbl and DaL12UU

Reaction equation



Reactant

Table 2367: Properties of each reactant.

Id	Name	SBO
DaL12CU	DaL12CU	

Modifier

Table 2368: Properties of each modifier.

Id	Name	SBO
DaL12CU	DaL12CU	

Products

Table 2369: Properties of each product.

Id	Name	SBO
Cb1	Cb1	
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

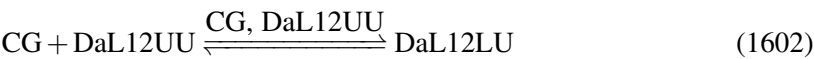
$$v_{788} = k_{u45} \cdot [\text{DaL12CU}] \tag{1601}$$

7.789 Reaction r789

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL12UU bind yielding DaL12LU

Reaction equation



Reactants

Table 2370: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL12UU	DaL12UU	

Modifiers

Table 2371: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL12UU	DaL12UU	

Product

Table 2372: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{789} = kb45 \cdot [CG] \cdot [DaL12UU]$$

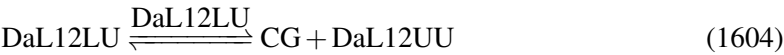
(1603)

7.790 Reaction r790

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LU dissociates to CG and DaL12UU

Reaction equation



Reactant

Table 2373: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 2374: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Products

Table 2375: Properties of each product.

Id	Name	SBO
CG	CG	
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

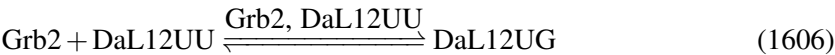
$$v_{790} = k_{u45} \cdot [\text{DaL12LU}] \tag{1605}$$

7.791 Reaction r791

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL12UU bind yielding DaL12UG

Reaction equation



Reactants

Table 2376: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL12UU	DaL12UU	

Modifiers

Table 2377: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL12UU	DaL12UU	

Product

Table 2378: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{791} = 2 \cdot kb68 \cdot [Grb2] \cdot [DaL12UU] \tag{1607}$$

7.792 Reaction r792

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12UG dissociates to Grb2 and DaL12UU

Reaction equation



Reactant

Table 2379: Properties of each reactant.

Id	Name	SBO
DaL12UG	DaL12UG	

Modifier

Table 2380: Properties of each modifier.

Id	Name	SBO
DaL12UG	DaL12UG	

Products

Table 2381: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{792} = k_{u68} \cdot [\text{DaL12UG}] \tag{1609}$$

7.793 Reaction r793

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL12UU bind yielding DaL12UL

Reaction equation



Reactants

Table 2382: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL12UU	DaL12UU	

Modifiers

Table 2383: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL12UU	DaL12UU	

Product

Table 2384: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

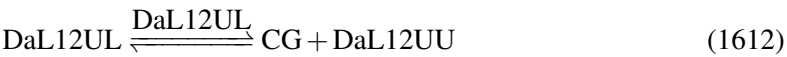
$$v_{793} = 2 \cdot kb68 \cdot [CG] \cdot [DaL12UU] \tag{1611}$$

7.794 Reaction r794

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12UL dissociates to CG and DaL12UU

Reaction equation



Reactant

Table 2385: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 2386: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Products

Table 2387: Properties of each product.

Id	Name	SBO
CG	CG	
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{794} = k_{u68} \cdot [\text{DaL12UL}] \tag{1613}$$

7.795 Reaction r795

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL12CU bind yielding DaL12LU

Reaction equation



Reactants

Table 2388: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL12CU	DaL12CU	

Modifiers

Table 2389: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL12CU	DaL12CU	

Product

Table 2390: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{795} = kbcg \cdot [Grb2] \cdot [DaL12CU] \tag{1615}$$

7.796 Reaction r796

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LU dissociates to Grb2 and DaL12CU

Reaction equation



Reactant

Table 2391: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 2392: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Products

Table 2393: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{796} = kucg \cdot [DaL12LU] \tag{1617}$$

7.797 Reaction [r797](#)

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL12CU bind yielding DaL12CG

Reaction equation



Reactants

Table 2394: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL12CU	DaL12CU	

Modifiers

Table 2395: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL12CU	DaL12CU	

Product

Table 2396: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{797} = 2 \cdot kb_{68} \cdot [Grb2] \cdot [DaL12CU]$$

(1619)

7.798 Reaction r798

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12CG dissociates to Grb2 and DaL12CU

Reaction equation



Reactant

Table 2397: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 2398: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Products

Table 2399: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{798} = k_{u68} \cdot [\text{DaL12CG}]$$

(1621)

7.799 Reaction r799

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL12LU bind yielding DaL12LG

Reaction equation



Reactants

Table 2400: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL12LU	DaL12LU	

Modifiers

Table 2401: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL12LU	DaL12LU	

Product

Table 2402: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{799} = 2 \cdot kb_{68} \cdot [Grb2] \cdot [DaL12LU]$$

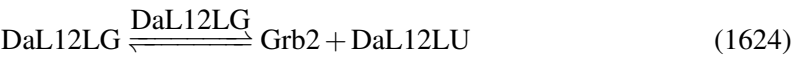
(1623)

7.800 Reaction r800

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LG dissociates to Grb2 and DaL12LU

Reaction equation



Reactant

Table 2403: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 2404: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Products

Table 2405: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{800} = k_{u68} \cdot [\text{DaL12LG}]$$

(1625)

7.801 Reaction r801

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LU transforms in (singly-bound -> doubly-bound) DaL12CC

Reaction equation



Reactant

Table 2406: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 2407: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Product

Table 2408: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{801} = 2 \cdot kb68P \cdot [DaL12LU] \tag{1627}$$

7.802 Reaction r802

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CC tranforms in (doubly-bound -> singly-bound) DaL12LU

Reaction equation



Reactant

Table 2409: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 2410: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Product

Table 2411: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{802} = k_{u68M} \cdot [\text{DaL12CC}] \quad (1629)$$

7.803 Reaction r803

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL12UG bind yielding DaL12CG

Reaction equation



Reactants

Table 2412: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL12UG	DaL12UG	

Modifiers

Table 2413: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL12UG	DaL12UG	

Product

Table 2414: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

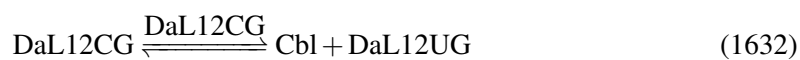
$$v_{803} = kb45 \cdot [Cbl] \cdot [DaL12UG] \quad (1631)$$

7.804 Reaction r804

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12CG dissociates to Cbl and DaL12UG

Reaction equation



Reactant

Table 2415: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 2416: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Products

Table 2417: Properties of each product.

Id	Name	SBO
Cbl	Cbl	

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{804} = k_{u45} \cdot [\text{DaL12CG}] \quad (1633)$$

7.805 Reaction r805

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name CG and DaL12UG bind yielding DaL12LG

Reaction equation



Reactants

Table 2418: Properties of each reactant.

Id	Name	SBO
CG	CG	
DaL12UG	DaL12UG	

Modifiers

Table 2419: Properties of each modifier.

Id	Name	SBO
CG	CG	
DaL12UG	DaL12UG	

Product

Table 2420: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{805} = k_{b45} \cdot [CG] \cdot [DaL12UG]$$

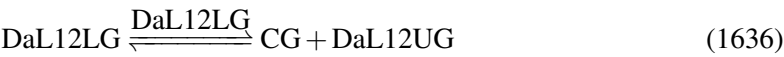
(1635)

7.806 Reaction r806

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LG dissociates to CG and DaL12UG

Reaction equation



Reactant

Table 2421: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 2422: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Products

Table 2423: Properties of each product.

Id	Name	SBO
CG	CG	
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{806} = k_{u45} \cdot [\text{DaL12LG}] \tag{1637}$$

7.807 Reaction r807

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Cbl and DaL12UG bind yielding DaL12UL

Reaction equation



Reactants

Table 2424: Properties of each reactant.

Id	Name	SBO
Cbl	Cbl	
DaL12UG	DaL12UG	

Modifiers

Table 2425: Properties of each modifier.

Id	Name	SBO
Cbl	Cbl	
DaL12UG	DaL12UG	

Product

Table 2426: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

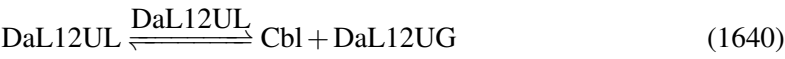
$$v_{807} = k_{bcg} \cdot [\text{Cbl}] \cdot [\text{DaL12UG}] \tag{1639}$$

7.808 Reaction r808

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12UL dissociates to Cbl and DaL12UG

Reaction equation



Reactant

Table 2427: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 2428: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Products

Table 2429: Properties of each product.

Id	Name	SBO
Cbl	Cbl	
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$v_{808} = kucg \cdot [\text{DaL12UL}]$

(1641)

7.809 Reaction r809

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UL transforms in (singly-bound -> doubly-bound) DaL12CC

Reaction equation



Reactant

Table 2430: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 2431: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Product

Table 2432: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$v_{809} = \text{kb45P} \cdot [\text{DaL12UL}]$

(1643)

7.810 Reaction r810

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CC tranforms in (doubly-bound -> singly-bound) DaL12UL

Reaction equation



Reactant

Table 2433: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 2434: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Product

Table 2435: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{810} = ku_{45M} \cdot [DaL12CC] \tag{1645}$$

7.811 Reaction r811

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CG transforms in (Cbl bind Grb2 directly) DaL12CC

Reaction equation



Reactant

Table 2436: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 2437: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Product

Table 2438: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{811} = kbcgP \cdot [DaL12CG] \tag{1647}$$

7.812 Reaction r812

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CC tranforms in (Cbl-Grb2 loose direct binding, but stay bound to EGFR) DaL12CG

Reaction equation



Reactant

Table 2439: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 2440: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Product

Table 2441: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{812} = kucgM \cdot [DaL12CC] \tag{1649}$$

7.813 Reaction r813

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Grb2 and DaL12CG bind yielding DaL12LG

Reaction equation



Reactants

Table 2442: Properties of each reactant.

Id	Name	SBO
Grb2	Grb2	
DaL12CG	DaL12CG	

Modifiers

Table 2443: Properties of each modifier.

Id	Name	SBO
Grb2	Grb2	
DaL12CG	DaL12CG	

Product

Table 2444: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{813} = kbcg \cdot [Grb2] \cdot [DaL12CG] \tag{1651}$$

7.814 Reaction r814

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LG dissociates to Grb2 and DaL12CG

Reaction equation



Reactant

Table 2445: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 2446: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Products

Table 2447: Properties of each product.

Id	Name	SBO
Grb2	Grb2	
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{814} = kucg \cdot [DaL12LG]$$

(1653)

7.815 Reaction r815

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R00UU closes

Reaction equation



Reactant

Table 2448: Properties of each reactant.

Id	Name	SBO
R00UU	R00UU	

Modifier

Table 2449: Properties of each modifier.

Id	Name	SBO
R00UU	R00UU	

Product

Table 2450: Properties of each product.

Id	Name	SBO
Rc00UU	Rc00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{815} = k_c \cdot [R00UU] \tag{1655}$$

7.816 Reaction r816

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10UU closes

Reaction equation



Reactant

Table 2451: Properties of each reactant.

Id	Name	SBO
R10UU	R10UU	

Modifier

Table 2452: Properties of each modifier.

Id	Name	SBO
R10UU	R10UU	

Product

Table 2453: Properties of each product.

Id	Name	SBO
Rc10UU	Rc10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{816} = k_c \cdot [R10UU] \tag{1657}$$

7.817 Reaction r817

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10CU closes

Reaction equation



Reactant

Table 2454: Properties of each reactant.

Id	Name	SBO
R10CU	R10CU	

Modifier

Table 2455: Properties of each modifier.

Id	Name	SBO
R10CU	R10CU	

Product

Table 2456: Properties of each product.

Id	Name	SBO
Rc10CU	Rc10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{817} = k_c \cdot [\text{R10CU}] \quad (1659)$$

7.818 Reaction r818

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10LU closes

Reaction equation**Reactant**

Table 2457: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	

Modifier

Table 2458: Properties of each modifier.

Id	Name	SBO
R10LU	R10LU	

Product

Table 2459: Properties of each product.

Id	Name	SBO
Rc10LU	Rc10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{818} = k_c \cdot [R10LU]$$

(1661)

7.819 Reaction r819

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UU closes

Reaction equation



Reactant

Table 2460: Properties of each reactant.

Id	Name	SBO
R01UU	R01UU	

Modifier

Table 2461: Properties of each modifier.

Id	Name	SBO
R01UU	R01UU	

Product

Table 2462: Properties of each product.

Id	Name	SBO
Rc01UU	Rc01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{819} = k_c \cdot [R01UU]$$

(1663)

7.820 Reaction r820

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UG closes

Reaction equation



Reactant

Table 2463: Properties of each reactant.

Id	Name	SBO
R01UG	R01UG	

Modifier

Table 2464: Properties of each modifier.

Id	Name	SBO
R01UG	R01UG	

Product

Table 2465: Properties of each product.

Id	Name	SBO
Rc01UG	Rc01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{820} = k_c \cdot [\text{R01UG}]$$

(1665)

7.821 Reaction r821

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UL closes

Reaction equation



Reactant

Table 2466: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	

Modifier

Table 2467: Properties of each modifier.

Id	Name	SBO
R01UL	R01UL	

Product

Table 2468: Properties of each product.

Id	Name	SBO
Rc01UL	Rc01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{821} = kc \cdot [R01UL]$$

(1667)

7.822 Reaction r822

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UU closes

Reaction equation



Reactant

Table 2469: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	

Modifier

Table 2470: Properties of each modifier.

Id	Name	SBO
R11UU	R11UU	

Product

Table 2471: Properties of each product.

Id	Name	SBO
Rc11UU	Rc11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{822} = k_c \cdot [R11UU] \tag{1669}$$

7.823 Reaction r823

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CU closes

Reaction equation



Reactant

Table 2472: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	

Modifier

Table 2473: Properties of each modifier.

Id	Name	SBO
R11CU	R11CU	

Product

Table 2474: Properties of each product.

Id	Name	SBO
Rc11CU	Rc11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{823} = k_c \cdot [R11CU] \tag{1671}$$

7.824 Reaction r824

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11LU closes

Reaction equation



Reactant

Table 2475: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifier

Table 2476: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	

Product

Table 2477: Properties of each product.

Id	Name	SBO
Rc11LU	Rc11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{824} = k_c \cdot [R11LU] \tag{1673}$$

7.825 Reaction r825

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UG closes

Reaction equation



Reactant

Table 2478: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	

Modifier

Table 2479: Properties of each modifier.

Id	Name	SBO
R11UG	R11UG	

Product

Table 2480: Properties of each product.

Id	Name	SBO
Rc11UG	Rc11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{825} = k_c \cdot [R11UG] \tag{1675}$$

7.826 Reaction r826

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UL closes

Reaction equation



Reactant

Table 2481: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifier

Table 2482: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	

Product

Table 2483: Properties of each product.

Id	Name	SBO
Rc11UL	Rc11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{826} = k_c \cdot [\text{R11UL}] \quad (1677)$$

7.827 Reaction r827

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CG closes

Reaction equation**Reactant**

Table 2484: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifier

Table 2485: Properties of each modifier.

Id	Name	SBO
R11CG	R11CG	

Product

Table 2486: Properties of each product.

Id	Name	SBO
Rc11CG	Rc11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{827} = k_c \cdot [R11CG]$$

(1679)

7.828 Reaction r828

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CC closes

Reaction equation



Reactant

Table 2487: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifier

Table 2488: Properties of each modifier.

Id	Name	SBO
R11CC	R11CC	

Product

Table 2489: Properties of each product.

Id	Name	SBO
Rc11CC	Rc11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{828} = k_c \cdot [R11CC]$$

(1681)

7.829 Reaction r829

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11LG closes

Reaction equation



Reactant

Table 2490: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifier

Table 2491: Properties of each modifier.

Id	Name	SBO
R11LG	R11LG	

Product

Table 2492: Properties of each product.

Id	Name	SBO
Rc11LG	Rc11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{829} = k_c \cdot [\text{R11LG}]$$

(1683)

7.830 Reaction r830

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UU closes

Reaction equation



Reactant

Table 2493: Properties of each reactant.

Id	Name	SBO
R02UU	R02UU	

Modifier

Table 2494: Properties of each modifier.

Id	Name	SBO
R02UU	R02UU	

Product

Table 2495: Properties of each product.

Id	Name	SBO
Rc02UU	Rc02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{830} = k_c \cdot [\text{R02UU}]$$

(1685)

7.831 Reaction r831

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UG closes

Reaction equation



Reactant

Table 2496: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	

Modifier

Table 2497: Properties of each modifier.

Id	Name	SBO
R02UG	R02UG	

Product

Table 2498: Properties of each product.

Id	Name	SBO
Rc02UG	Rc02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{831} = k_c \cdot [R02UG]$$

(1687)

7.832 Reaction r832

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UL closes

Reaction equation



Reactant

Table 2499: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifier

Table 2500: Properties of each modifier.

Id	Name	SBO
R02UL	R02UL	

Product

Table 2501: Properties of each product.

Id	Name	SBO
Rc02UL	Rc02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{832} = k_c \cdot [R02UL] \tag{1689}$$

7.833 Reaction r833

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UU closes

Reaction equation



Reactant

Table 2502: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	

Modifier

Table 2503: Properties of each modifier.

Id	Name	SBO
R12UU	R12UU	

Product

Table 2504: Properties of each product.

Id	Name	SBO
Rc12UU	Rc12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{833} = k_c \cdot [R12UU] \tag{1691}$$

7.834 Reaction r834

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CU closes

Reaction equation



Reactant

Table 2505: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	

Modifier

Table 2506: Properties of each modifier.

Id	Name	SBO
R12CU	R12CU	

Product

Table 2507: Properties of each product.

Id	Name	SBO
Rc12CU	Rc12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{834} = k_c \cdot [R12CU] \tag{1693}$$

7.835 Reaction r835

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LU closes

Reaction equation



Reactant

Table 2508: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifier

Table 2509: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	

Product

Table 2510: Properties of each product.

Id	Name	SBO
Rc12LU	Rc12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{835} = k_c \cdot [\text{R12LU}] \quad (1695)$$

7.836 Reaction r836

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UG closes

Reaction equation**Reactant**

Table 2511: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifier

Table 2512: Properties of each modifier.

Id	Name	SBO
R12UG	R12UG	

Product

Table 2513: Properties of each product.

Id	Name	SBO
Rc12UG	Rc12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{836} = k_c \cdot [R12UG]$$

(1697)

7.837 Reaction r837

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UL closes

Reaction equation



Reactant

Table 2514: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 2515: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Product

Table 2516: Properties of each product.

Id	Name	SBO
Rc12UL	Rc12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{837} = k_c \cdot [R12UL]$$

(1699)

7.838 Reaction r838

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CG closes

Reaction equation



Reactant

Table 2517: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifier

Table 2518: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	

Product

Table 2519: Properties of each product.

Id	Name	SBO
Rc12CG	Rc12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{838} = k_c \cdot [\text{R12CG}]$$

(1701)

7.839 Reaction r839

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CC closes

Reaction equation



Reactant

Table 2520: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifier

Table 2521: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	

Product

Table 2522: Properties of each product.

Id	Name	SBO
Rc12CC	Rc12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{839} = k_c \cdot [\text{R12CC}]$$

(1703)

7.840 Reaction r840

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LG closes

Reaction equation



Reactant

Table 2523: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifier

Table 2524: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	

Product

Table 2525: Properties of each product.

Id	Name	SBO
Rc12LG	Rc12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{840} = k_c \cdot [R12LG]$$

(1705)

7.841 Reaction r841

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc00UU opens

Reaction equation



Reactant

Table 2526: Properties of each reactant.

Id	Name	SBO
Rc00UU	Rc00UU	

Modifier

Table 2527: Properties of each modifier.

Id	Name	SBO
Rc00UU	Rc00UU	

Product

Table 2528: Properties of each product.

Id	Name	SBO
R00UU	R00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{841} = k_o \cdot [Rc00UU] \tag{1707}$$

7.842 Reaction r842

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc10UU opens

Reaction equation



Reactant

Table 2529: Properties of each reactant.

Id	Name	SBO
Rc10UU	Rc10UU	

Modifier

Table 2530: Properties of each modifier.

Id	Name	SBO
Rc10UU	Rc10UU	

Product

Table 2531: Properties of each product.

Id	Name	SBO
R10UU	R10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{842} = k_0 \cdot [\text{Rc10UU}] \tag{1709}$$

7.843 Reaction r843

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc10CU opens

Reaction equation



Reactant

Table 2532: Properties of each reactant.

Id	Name	SBO
Rc10CU	Rc10CU	

Modifier

Table 2533: Properties of each modifier.

Id	Name	SBO
Rc10CU	Rc10CU	

Product

Table 2534: Properties of each product.

Id	Name	SBO
R10CU	R10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{843} = k_0 \cdot [Rc10CU] \tag{1711}$$

7.844 Reaction r844

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc10LU opens

Reaction equation



Reactant

Table 2535: Properties of each reactant.

Id	Name	SBO
Rc10LU	Rc10LU	

Modifier

Table 2536: Properties of each modifier.

Id	Name	SBO
Rc10LU	Rc10LU	

Product

Table 2537: Properties of each product.

Id	Name	SBO
R10LU	R10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{844} = k_o \cdot [\text{Rc10LU}] \quad (1713)$$

7.845 Reaction r845

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc01UU opens

Reaction equation**Reactant**

Table 2538: Properties of each reactant.

Id	Name	SBO
Rc01UU	Rc01UU	

Modifier

Table 2539: Properties of each modifier.

Id	Name	SBO
Rc01UU	Rc01UU	

Product

Table 2540: Properties of each product.

Id	Name	SBO
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{845} = k_o \cdot [\text{Rc01UU}]$$

(1715)

7.846 Reaction r846

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc01UG opens

Reaction equation



Reactant

Table 2541: Properties of each reactant.

Id	Name	SBO
Rc01UG	Rc01UG	

Modifier

Table 2542: Properties of each modifier.

Id	Name	SBO
Rc01UG	Rc01UG	

Product

Table 2543: Properties of each product.

Id	Name	SBO
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{846} = k_o \cdot [\text{Rc01UG}]$$

(1717)

7.847 Reaction r847

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc01UL opens

Reaction equation



Reactant

Table 2544: Properties of each reactant.

Id	Name	SBO
Rc01UL	Rc01UL	

Modifier

Table 2545: Properties of each modifier.

Id	Name	SBO
Rc01UL	Rc01UL	

Product

Table 2546: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{847} = k_o \cdot [\text{Rc01UL}]$$

(1719)

7.848 Reaction r848

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UU opens

Reaction equation



Reactant

Table 2547: Properties of each reactant.

Id	Name	SBO
Rc11UU	Rc11UU	

Modifier

Table 2548: Properties of each modifier.

Id	Name	SBO
Rc11UU	Rc11UU	

Product

Table 2549: Properties of each product.

Id	Name	SBO
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{848} = k_0 \cdot [\text{Rc11UU}]$$

(1721)

7.849 Reaction r849

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CU opens

Reaction equation



Reactant

Table 2550: Properties of each reactant.

Id	Name	SBO
Rc11CU	Rc11CU	

Modifier

Table 2551: Properties of each modifier.

Id	Name	SBO
Rc11CU	Rc11CU	

Product

Table 2552: Properties of each product.

Id	Name	SBO
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{849} = k_0 \cdot [Rc11CU]$$

(1723)

7.850 Reaction r850

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11LU opens

Reaction equation



Reactant

Table 2553: Properties of each reactant.

Id	Name	SBO
Rc11LU	Rc11LU	

Modifier

Table 2554: Properties of each modifier.

Id	Name	SBO
Rc11LU	Rc11LU	

Product

Table 2555: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{850} = k_0 \cdot [Rc11LU] \tag{1725}$$

7.851 Reaction r851

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UG opens

Reaction equation



Reactant

Table 2556: Properties of each reactant.

Id	Name	SBO
Rc11UG	Rc11UG	

Modifier

Table 2557: Properties of each modifier.

Id	Name	SBO
Rc11UG	Rc11UG	

Product

Table 2558: Properties of each product.

Id	Name	SBO
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{851} = k_o \cdot [Rc11UG] \tag{1727}$$

7.852 Reaction r852

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11UL opens

Reaction equation



Reactant

Table 2559: Properties of each reactant.

Id	Name	SBO
Rc11UL	Rc11UL	

Modifier

Table 2560: Properties of each modifier.

Id	Name	SBO
Rc11UL	Rc11UL	

Product

Table 2561: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{852} = k_0 \cdot [Rc11UL] \tag{1729}$$

7.853 Reaction r853

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CG opens

Reaction equation



Reactant

Table 2562: Properties of each reactant.

Id	Name	SBO
Rc11CG	Rc11CG	

Modifier

Table 2563: Properties of each modifier.

Id	Name	SBO
Rc11CG	Rc11CG	

Product

Table 2564: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{853} = k_0 \cdot [\text{Rc11CG}] \quad (1731)$$

7.854 Reaction r854

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11CC opens

Reaction equation**Reactant**

Table 2565: Properties of each reactant.

Id	Name	SBO
Rc11CC	Rc11CC	

Modifier

Table 2566: Properties of each modifier.

Id	Name	SBO
Rc11CC	Rc11CC	

Product

Table 2567: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{854} = k_o \cdot [Rc11CC]$$

(1733)

7.855 Reaction r855

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc11LG opens

Reaction equation



Reactant

Table 2568: Properties of each reactant.

Id	Name	SBO
Rc11LG	Rc11LG	

Modifier

Table 2569: Properties of each modifier.

Id	Name	SBO
Rc11LG	Rc11LG	

Product

Table 2570: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{855} = k_o \cdot [Rc11LG]$$

(1735)

7.856 Reaction r856

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc02UU opens

Reaction equation



Reactant

Table 2571: Properties of each reactant.

Id	Name	SBO
Rc02UU	Rc02UU	

Modifier

Table 2572: Properties of each modifier.

Id	Name	SBO
Rc02UU	Rc02UU	

Product

Table 2573: Properties of each product.

Id	Name	SBO
R02UU	R02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{856} = k_o \cdot [\text{Rc02UU}]$$

(1737)

7.857 Reaction r857

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc02UG opens

Reaction equation



Reactant

Table 2574: Properties of each reactant.

Id	Name	SBO
Rc02UG	Rc02UG	

Modifier

Table 2575: Properties of each modifier.

Id	Name	SBO
Rc02UG	Rc02UG	

Product

Table 2576: Properties of each product.

Id	Name	SBO
R02UG	R02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{857} = k_0 \cdot [\text{Rc02UG}]$$

(1739)

7.858 Reaction r858

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc02UL opens

Reaction equation



Reactant

Table 2577: Properties of each reactant.

Id	Name	SBO
Rc02UL	Rc02UL	

Modifier

Table 2578: Properties of each modifier.

Id	Name	SBO
Rc02UL	Rc02UL	

Product

Table 2579: Properties of each product.

Id	Name	SBO
R02UL	R02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{858} = k_0 \cdot [Rc02UL] \tag{1741}$$

7.859 Reaction r859

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UU opens

Reaction equation



Reactant

Table 2580: Properties of each reactant.

Id	Name	SBO
Rc12UU	Rc12UU	

Modifier

Table 2581: Properties of each modifier.

Id	Name	SBO
Rc12UU	Rc12UU	

Product

Table 2582: Properties of each product.

Id	Name	SBO
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{859} = k_o \cdot [Rc12UU] \tag{1743}$$

7.860 Reaction r860

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CU opens

Reaction equation



Reactant

Table 2583: Properties of each reactant.

Id	Name	SBO
Rc12CU	Rc12CU	

Modifier

Table 2584: Properties of each modifier.

Id	Name	SBO
Rc12CU	Rc12CU	

Product

Table 2585: Properties of each product.

Id	Name	SBO
R12CU	R12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{860} = k_o \cdot [Rc12CU] \tag{1745}$$

7.861 Reaction r861

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12LU opens

Reaction equation



Reactant

Table 2586: Properties of each reactant.

Id	Name	SBO
Rc12LU	Rc12LU	

Modifier

Table 2587: Properties of each modifier.

Id	Name	SBO
Rc12LU	Rc12LU	

Product

Table 2588: Properties of each product.

Id	Name	SBO
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{861} = k_o \cdot [Rc12LU] \tag{1747}$$

7.862 Reaction r862

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UG opens

Reaction equation



Reactant

Table 2589: Properties of each reactant.

Id	Name	SBO
Rc12UG	Rc12UG	

Modifier

Table 2590: Properties of each modifier.

Id	Name	SBO
Rc12UG	Rc12UG	

Product

Table 2591: Properties of each product.

Id	Name	SBO
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{862} = k_o \cdot [\text{Rc12UG}] \quad (1749)$$

7.863 Reaction r863

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12UL opens

Reaction equation**Reactant**

Table 2592: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	

Modifier

Table 2593: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	

Product

Table 2594: Properties of each product.

Id	Name	SBO
R12UL	R12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{863} = k_o \cdot [Rc12UL]$$

(1751)

7.864 Reaction r864

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CG opens

Reaction equation



Reactant

Table 2595: Properties of each reactant.

Id	Name	SBO
Rc12CG	Rc12CG	

Modifier

Table 2596: Properties of each modifier.

Id	Name	SBO
Rc12CG	Rc12CG	

Product

Table 2597: Properties of each product.

Id	Name	SBO
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{864} = k_o \cdot [Rc12CG]$$

(1753)

7.865 Reaction r865

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12CC opens

Reaction equation



Reactant

Table 2598: Properties of each reactant.

Id	Name	SBO
Rc12CC	Rc12CC	

Modifier

Table 2599: Properties of each modifier.

Id	Name	SBO
Rc12CC	Rc12CC	

Product

Table 2600: Properties of each product.

Id	Name	SBO
R12CC	R12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{865} = k_o \cdot [\text{Rc12CC}]$$

(1755)

7.866 Reaction r866

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Rc12LG opens

Reaction equation



Reactant

Table 2601: Properties of each reactant.

Id	Name	SBO
Rc12LG	Rc12LG	

Modifier

Table 2602: Properties of each modifier.

Id	Name	SBO
Rc12LG	Rc12LG	

Product

Table 2603: Properties of each product.

Id	Name	SBO
R12LG	R12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{866} = k_o \cdot [\text{Rc12LG}]$$

(1757)

7.867 Reaction r867

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL00UU closes

Reaction equation



Reactant

Table 2604: Properties of each reactant.

Id	Name	SBO
RL00UU	RL00UU	

Modifier

Table 2605: Properties of each modifier.

Id	Name	SBO
RL00UU	RL00UU	

Product

Table 2606: Properties of each product.

Id	Name	SBO
RcL00UU	RcL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{867} = k_{1c} \cdot [\text{RL00UU}]$$

(1759)

7.868 Reaction r868

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10UU closes

Reaction equation



Reactant

Table 2607: Properties of each reactant.

Id	Name	SBO
RL10UU	RL10UU	

Modifier

Table 2608: Properties of each modifier.

Id	Name	SBO
RL10UU	RL10UU	

Product

Table 2609: Properties of each product.

Id	Name	SBO
RcL10UU	RcL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{868} = k_{1c} \cdot [\text{RL10UU}] \quad (1761)$$

7.869 Reaction r869

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10CU closes

Reaction equation



Reactant

Table 2610: Properties of each reactant.

Id	Name	SBO
RL10CU	RL10CU	

Modifier

Table 2611: Properties of each modifier.

Id	Name	SBO
RL10CU	RL10CU	

Product

Table 2612: Properties of each product.

Id	Name	SBO
RcL10CU	RcL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{869} = k_{1c} \cdot [\text{RL10CU}] \tag{1763}$$

7.870 Reaction r870

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10LU closes

Reaction equation



Reactant

Table 2613: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifier

Table 2614: Properties of each modifier.

Id	Name	SBO
RL10LU	RL10LU	

Product

Table 2615: Properties of each product.

Id	Name	SBO
RcL10LU	RcL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{870} = k_{1c} \cdot [\text{RL10LU}] \tag{1765}$$

7.871 Reaction r871

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UU closes

Reaction equation



Reactant

Table 2616: Properties of each reactant.

Id	Name	SBO
RL01UU	RL01UU	

Modifier

Table 2617: Properties of each modifier.

Id	Name	SBO
RL01UU	RL01UU	

Product

Table 2618: Properties of each product.

Id	Name	SBO
RcL01UU	RcL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{871} = k_{1c} \cdot [\text{RL01UU}] \quad (1767)$$

7.872 Reaction r872

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UG closes

Reaction equation**Reactant**

Table 2619: Properties of each reactant.

Id	Name	SBO
RL01UG	RL01UG	

Modifier

Table 2620: Properties of each modifier.

Id	Name	SBO
RL01UG	RL01UG	

Product

Table 2621: Properties of each product.

Id	Name	SBO
RcL01UG	RcL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{872} = k_{1c} \cdot [\text{RL01UG}]$$

(1769)

7.873 Reaction r873

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UL closes

Reaction equation



Reactant

Table 2622: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifier

Table 2623: Properties of each modifier.

Id	Name	SBO
RL01UL	RL01UL	

Product

Table 2624: Properties of each product.

Id	Name	SBO
RcL01UL	RcL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{873} = k_{1c} \cdot [\text{RL01UL}]$$

(1771)

7.874 Reaction r874

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UU closes

Reaction equation



Reactant

Table 2625: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifier

Table 2626: Properties of each modifier.

Id	Name	SBO
RL11UU	RL11UU	

Product

Table 2627: Properties of each product.

Id	Name	SBO
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{874} = k_{1c} \cdot [\text{RL11UU}]$$

(1773)

7.875 Reaction r875

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CU closes

Reaction equation



Reactant

Table 2628: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifier

Table 2629: Properties of each modifier.

Id	Name	SBO
RL11CU	RL11CU	

Product

Table 2630: Properties of each product.

Id	Name	SBO
RcL11CU	RcL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{875} = k_{1c} \cdot [\text{RL11CU}]$$

(1775)

7.876 Reaction r876

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11LU closes

Reaction equation



Reactant

Table 2631: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 2632: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Product

Table 2633: Properties of each product.

Id	Name	SBO
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{876} = k_{1c} \cdot [\text{RL11LU}]$$

(1777)

7.877 Reaction r877

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UG closes

Reaction equation



Reactant

Table 2634: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifier

Table 2635: Properties of each modifier.

Id	Name	SBO
RL11UG	RL11UG	

Product

Table 2636: Properties of each product.

Id	Name	SBO
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{877} = k_{1c} \cdot [\text{RL11UG}] \tag{1779}$$

7.878 Reaction r878

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UL closes

Reaction equation



Reactant

Table 2637: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 2638: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Product

Table 2639: Properties of each product.

Id	Name	SBO
RcL11UL	RcL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{878} = k_{1c} \cdot [RL11UL]$$

(1781)

7.879 Reaction r879

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CG closes

Reaction equation



Reactant

Table 2640: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifier

Table 2641: Properties of each modifier.

Id	Name	SBO
RL11CG	RL11CG	

Product

Table 2642: Properties of each product.

Id	Name	SBO
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{879} = k_{1c} \cdot [\text{RL11CG}] \quad (1783)$$

7.880 Reaction r880

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CC closes

Reaction equation



Reactant

Table 2643: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifier

Table 2644: Properties of each modifier.

Id	Name	SBO
RL11CC	RL11CC	

Product

Table 2645: Properties of each product.

Id	Name	SBO
RcL11CC	RcL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{880} = k_{1c} \cdot [\text{RL11CC}] \quad (1785)$$

7.881 Reaction r881

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11LG closes

Reaction equation**Reactant**

Table 2646: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifier

Table 2647: Properties of each modifier.

Id	Name	SBO
RL11LG	RL11LG	

Product

Table 2648: Properties of each product.

Id	Name	SBO
RcL11LG	RcL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{881} = k_{1c} \cdot [RL11LG]$$

(1787)

7.882 Reaction r882

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UU closes

Reaction equation



Reactant

Table 2649: Properties of each reactant.

Id	Name	SBO
RL02UU	RL02UU	

Modifier

Table 2650: Properties of each modifier.

Id	Name	SBO
RL02UU	RL02UU	

Product

Table 2651: Properties of each product.

Id	Name	SBO
RcL02UU	RcL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{882} = k_{1c} \cdot [RL02UU]$$

(1789)

7.883 Reaction r883

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UG closes

Reaction equation



Reactant

Table 2652: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifier

Table 2653: Properties of each modifier.

Id	Name	SBO
RL02UG	RL02UG	

Product

Table 2654: Properties of each product.

Id	Name	SBO
RcL02UG	RcL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{883} = k_{1c} \cdot [\text{RL02UG}]$$

(1791)

7.884 Reaction r884

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UL closes

Reaction equation



Reactant

Table 2655: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifier

Table 2656: Properties of each modifier.

Id	Name	SBO
RL02UL	RL02UL	

Product

Table 2657: Properties of each product.

Id	Name	SBO
RcL02UL	RcL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{884} = k_{1c} \cdot [\text{RL02UL}]$$

(1793)

7.885 Reaction r885

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UU closes

Reaction equation



Reactant

Table 2658: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifier

Table 2659: Properties of each modifier.

Id	Name	SBO
RL12UU	RL12UU	

Product

Table 2660: Properties of each product.

Id	Name	SBO
RcL12UU	RcL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{885} = k_{1c} \cdot [\text{RL12UU}] \tag{1795}$$

7.886 Reaction r886

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CU closes

Reaction equation



Reactant

Table 2661: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifier

Table 2662: Properties of each modifier.

Id	Name	SBO
RL12CU	RL12CU	

Product

Table 2663: Properties of each product.

Id	Name	SBO
RcL12CU	RcL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{886} = k_{1c} \cdot [\text{RL12CU}] \tag{1797}$$

7.887 Reaction r887

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LU closes

Reaction equation



Reactant

Table 2664: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 2665: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Product

Table 2666: Properties of each product.

Id	Name	SBO
RcL12LU	RcL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{887} = k_{1c} \cdot [\text{RL12LU}]$$

(1799)

7.888 Reaction r888

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UG closes

Reaction equation



Reactant

Table 2667: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifier

Table 2668: Properties of each modifier.

Id	Name	SBO
RL12UG	RL12UG	

Product

Table 2669: Properties of each product.

Id	Name	SBO
RcL12UG	RcL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{888} = k_{1c} \cdot [RL12UG]$$

(1801)

7.889 Reaction r889

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UL closes

Reaction equation



Reactant

Table 2670: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 2671: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Product

Table 2672: Properties of each product.

Id	Name	SBO
RcL12UL	RcL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{889} = k_{1c} \cdot [\text{RL12UL}] \quad (1803)$$

7.890 Reaction r890

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CG closes

Reaction equation**Reactant**

Table 2673: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 2674: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Product

Table 2675: Properties of each product.

Id	Name	SBO
RcL12CG	RcL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{890} = k_{1c} \cdot [RL12CG]$$

(1805)

7.891 Reaction r891

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CC closes

Reaction equation



Reactant

Table 2676: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 2677: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Product

Table 2678: Properties of each product.

Id	Name	SBO
RcL12CC	RcL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{891} = k_{1c} \cdot [RL12CC]$$

(1807)

7.892 Reaction r892

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LG closes

Reaction equation



Reactant

Table 2679: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 2680: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Product

Table 2681: Properties of each product.

Id	Name	SBO
RcL12LG	RcL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{892} = k_{1c} \cdot [\text{RL12LG}]$$

(1809)

7.893 Reaction r893

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL00UU opens

Reaction equation



Reactant

Table 2682: Properties of each reactant.

Id	Name	SBO
RcL00UU	RcL00UU	

Modifier

Table 2683: Properties of each modifier.

Id	Name	SBO
RcL00UU	RcL00UU	

Product

Table 2684: Properties of each product.

Id	Name	SBO
RL00UU	RL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{893} = k_{10} \cdot [\text{RcL00UU}]$$

(1811)

7.894 Reaction [r894](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL10UU opens

Reaction equation



Reactant

Table 2685: Properties of each reactant.

Id	Name	SBO
RcL10UU	RcL10UU	

Modifier

Table 2686: Properties of each modifier.

Id	Name	SBO
RcL10UU	RcL10UU	

Product

Table 2687: Properties of each product.

Id	Name	SBO
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{894} = k_{10} \cdot [\text{RcL10UU}]$$

(1813)

7.895 Reaction r895

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL10CU opens

Reaction equation



Reactant

Table 2688: Properties of each reactant.

Id	Name	SBO
RcL10CU	RcL10CU	

Modifier

Table 2689: Properties of each modifier.

Id	Name	SBO
RcL10CU	RcL10CU	

Product

Table 2690: Properties of each product.

Id	Name	SBO
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{895} = k_{10} \cdot [\text{RcL10CU}] \tag{1815}$$

7.896 Reaction r896

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL10LU opens

Reaction equation



Reactant

Table 2691: Properties of each reactant.

Id	Name	SBO
RcL10LU	RcL10LU	

Modifier

Table 2692: Properties of each modifier.

Id	Name	SBO
RcL10LU	RcL10LU	

Product

Table 2693: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{896} = k_{1o} \cdot [\text{RcL10LU}] \tag{1817}$$

7.897 Reaction r897

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL01UU opens

Reaction equation



Reactant

Table 2694: Properties of each reactant.

Id	Name	SBO
RcL01UU	RcL01UU	

Modifier

Table 2695: Properties of each modifier.

Id	Name	SBO
RcL01UU	RcL01UU	

Product

Table 2696: Properties of each product.

Id	Name	SBO
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{897} = k_{10} \cdot [\text{RcL01UG}] \tag{1819}$$

7.898 Reaction r898

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL01UG opens

Reaction equation



Reactant

Table 2697: Properties of each reactant.

Id	Name	SBO
RcL01UG	RcL01UG	

Modifier

Table 2698: Properties of each modifier.

Id	Name	SBO
RcL01UG	RcL01UG	

Product

Table 2699: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{898} = k_{1o} \cdot [\text{RcL01UG}] \quad (1821)$$

7.899 Reaction r899

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL01UL opens

Reaction equation**Reactant**

Table 2700: Properties of each reactant.

Id	Name	SBO
RcL01UL	RcL01UL	

Modifier

Table 2701: Properties of each modifier.

Id	Name	SBO
RcL01UL	RcL01UL	

Product

Table 2702: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{899} = k_{1o} \cdot [RcL01UL]$$

(1823)

7.900 Reaction r900

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UU opens

Reaction equation



Reactant

Table 2703: Properties of each reactant.

Id	Name	SBO
RcL11UU	RcL11UU	

Modifier

Table 2704: Properties of each modifier.

Id	Name	SBO
RcL11UU	RcL11UU	

Product

Table 2705: Properties of each product.

Id	Name	SBO
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{900} = k_{1o} \cdot [RcL11UU]$$

(1825)

7.901 Reaction r901

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CU opens

Reaction equation



Reactant

Table 2706: Properties of each reactant.

Id	Name	SBO
RcL11CU	RcL11CU	

Modifier

Table 2707: Properties of each modifier.

Id	Name	SBO
RcL11CU	RcL11CU	

Product

Table 2708: Properties of each product.

Id	Name	SBO
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{901} = k_{1o} \cdot [\text{RcL11CU}]$$

(1827)

7.902 Reaction r902

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11LU opens

Reaction equation



Reactant

Table 2709: Properties of each reactant.

Id	Name	SBO
RcL11LU	RcL11LU	

Modifier

Table 2710: Properties of each modifier.

Id	Name	SBO
RcL11LU	RcL11LU	

Product

Table 2711: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{902} = k_{1o} \cdot [\text{RcL11LU}]$$

(1829)

7.903 Reaction r903

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UG opens

Reaction equation



Reactant

Table 2712: Properties of each reactant.

Id	Name	SBO
RcL11UG	RcL11UG	

Modifier

Table 2713: Properties of each modifier.

Id	Name	SBO
RcL11UG	RcL11UG	

Product

Table 2714: Properties of each product.

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{903} = k_{1o} \cdot [\text{RcL11UG}]$$

(1831)

7.904 Reaction r904

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11UL opens

Reaction equation



Reactant

Table 2715: Properties of each reactant.

Id	Name	SBO
RcL11UL	RcL11UL	

Modifier

Table 2716: Properties of each modifier.

Id	Name	SBO
RcL11UL	RcL11UL	

Product

Table 2717: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{904} = k_{1o} \cdot [\text{RcL11UL}]$$

(1833)

7.905 Reaction r905

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CG opens

Reaction equation



Reactant

Table 2718: Properties of each reactant.

Id	Name	SBO
RcL11CG	RcL11CG	

Modifier

Table 2719: Properties of each modifier.

Id	Name	SBO
RcL11CG	RcL11CG	

Product

Table 2720: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{905} = k_{10} \cdot [\text{RcL11CG}] \tag{1835}$$

7.906 Reaction r906

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11CC opens

Reaction equation



Reactant

Table 2721: Properties of each reactant.

Id	Name	SBO
RcL11CC	RcL11CC	

Modifier

Table 2722: Properties of each modifier.

Id	Name	SBO
RcL11CC	RcL11CC	

Product

Table 2723: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{906} = k_{10} \cdot [\text{RcL11CC}] \tag{1837}$$

7.907 Reaction r907

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL11LG opens

Reaction equation



Reactant

Table 2724: Properties of each reactant.

Id	Name	SBO
RcL11LG	RcL11LG	

Modifier

Table 2725: Properties of each modifier.

Id	Name	SBO
RcL11LG	RcL11LG	

Product

Table 2726: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{907} = k_{10} \cdot [\text{RcL11LG}] \quad (1839)$$

7.908 Reaction r908

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL02UU opens

Reaction equation**Reactant**

Table 2727: Properties of each reactant.

Id	Name	SBO
RcL02UU	RcL02UU	

Modifier

Table 2728: Properties of each modifier.

Id	Name	SBO
RcL02UU	RcL02UU	

Product

Table 2729: Properties of each product.

Id	Name	SBO
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{908} = k_{1o} \cdot [\text{RcL02UU}]$$

(1841)

7.909 Reaction r909

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL02UG opens

Reaction equation



Reactant

Table 2730: Properties of each reactant.

Id	Name	SBO
RcL02UG	RcL02UG	

Modifier

Table 2731: Properties of each modifier.

Id	Name	SBO
RcL02UG	RcL02UG	

Product

Table 2732: Properties of each product.

Id	Name	SBO
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{909} = k_{1o} \cdot [\text{RcL02UG}]$$

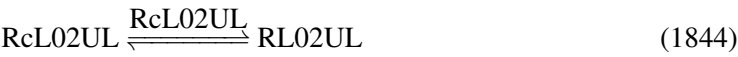
(1843)

7.910 Reaction r910

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL02UL opens

Reaction equation



Reactant

Table 2733: Properties of each reactant.

Id	Name	SBO
RcL02UL	RcL02UL	

Modifier

Table 2734: Properties of each modifier.

Id	Name	SBO
RcL02UL	RcL02UL	

Product

Table 2735: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{910} = k_{10} \cdot [\text{RcL02UL}]$$

(1845)

7.911 Reaction r911

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UU opens

Reaction equation



Reactant

Table 2736: Properties of each reactant.

Id	Name	SBO
RcL12UU	RcL12UU	

Modifier

Table 2737: Properties of each modifier.

Id	Name	SBO
RcL12UU	RcL12UU	

Product

Table 2738: Properties of each product.

Id	Name	SBO
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{911} = k_{10} \cdot [\text{RcL12UU}]$$

(1847)

7.912 Reaction r912

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CU opens

Reaction equation



Reactant

Table 2739: Properties of each reactant.

Id	Name	SBO
RcL12CU	RcL12CU	

Modifier

Table 2740: Properties of each modifier.

Id	Name	SBO
RcL12CU	RcL12CU	

Product

Table 2741: Properties of each product.

Id	Name	SBO
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{912} = k_{10} \cdot [\text{RcL12CU}]$$

(1849)

7.913 Reaction r913

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12LU opens

Reaction equation



Reactant

Table 2742: Properties of each reactant.

Id	Name	SBO
RcL12LU	RcL12LU	

Modifier

Table 2743: Properties of each modifier.

Id	Name	SBO
RcL12LU	RcL12LU	

Product

Table 2744: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{913} = k_{1o} \cdot [\text{RcL12LU}] \tag{1851}$$

7.914 Reaction r914

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UG opens

Reaction equation



Reactant

Table 2745: Properties of each reactant.

Id	Name	SBO
RcL12UG	RcL12UG	

Modifier

Table 2746: Properties of each modifier.

Id	Name	SBO
RcL12UG	RcL12UG	

Product

Table 2747: Properties of each product.

Id	Name	SBO
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{914} = k_{10} \cdot [\text{RcL12UG}] \tag{1853}$$

7.915 Reaction r915

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12UL opens

Reaction equation



Reactant

Table 2748: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 2749: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Product

Table 2750: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{915} = k_{10} \cdot [\text{RcL12UL}] \tag{1855}$$

7.916 Reaction r916

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CG opens

Reaction equation



Reactant

Table 2751: Properties of each reactant.

Id	Name	SBO
RcL12CG	RcL12CG	

Modifier

Table 2752: Properties of each modifier.

Id	Name	SBO
RcL12CG	RcL12CG	

Product

Table 2753: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{916} = k_{10} \cdot [\text{RcL12CG}] \quad (1857)$$

7.917 Reaction r917

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12CC opens

Reaction equation**Reactant**

Table 2754: Properties of each reactant.

Id	Name	SBO
RcL12CC	RcL12CC	

Modifier

Table 2755: Properties of each modifier.

Id	Name	SBO
RcL12CC	RcL12CC	

Product

Table 2756: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$$\nu_{917} = k_{1o} \cdot [\text{RcL12CC}]$$

(1859)

7.918 Reaction r918

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RcL12LG opens

Reaction equation



Reactant

Table 2757: Properties of each reactant.

Id	Name	SBO
RcL12LG	RcL12LG	

Modifier

Table 2758: Properties of each modifier.

Id	Name	SBO
RcL12LG	RcL12LG	

Product

Table 2759: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

$$\nu_{918} = k_{1o} \cdot [\text{RcL12LG}]$$

(1861)

7.919 Reaction r919

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R00UU binds ligand

Reaction equation



Reactants

Table 2760: Properties of each reactant.

Id	Name	SBO
R00UU	R00UU	
L	L	

Modifiers

Table 2761: Properties of each modifier.

Id	Name	SBO
R00UU	R00UU	
L	L	

Product

Table 2762: Properties of each product.

Id	Name	SBO
RL00UU	RL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{919} = k_b \cdot [\text{R00UU}] \cdot [\text{L}]$$

(1863)

7.920 Reaction r920

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R10UU binds ligand

Reaction equation



Reactants

Table 2763: Properties of each reactant.

Id	Name	SBO
R10UU	R10UU	
L	L	

Modifiers

Table 2764: Properties of each modifier.

Id	Name	SBO
R10UU	R10UU	
L	L	

Product

Table 2765: Properties of each product.

Id	Name	SBO
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{920} = k_b \cdot [\text{R10UU}] \cdot [\text{L}] \quad (1865)$$

7.921 Reaction r921

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R10CU binds ligand

Reaction equation



Reactants

Table 2766: Properties of each reactant.

Id	Name	SBO
R10CU	R10CU	
L	L	

Modifiers

Table 2767: Properties of each modifier.

Id	Name	SBO
R10CU	R10CU	
L	L	

Product

Table 2768: Properties of each product.

Id	Name	SBO
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{921} = k_b \cdot [\text{R10CU}] \cdot [\text{L}]$$

(1867)

7.922 Reaction r922

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R10LU binds ligand

Reaction equation



Reactants

Table 2769: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	
L	L	

Modifiers

Table 2770: Properties of each modifier.

Id	Name	SBO
R10LU	R10LU	
L	L	

Product

Table 2771: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{922} = k_b \cdot [R10LU] \cdot [L]$$

(1869)

7.923 Reaction r923

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R01UU binds ligand

Reaction equation



Reactants

Table 2772: Properties of each reactant.

Id	Name	SBO
R01UU	R01UU	
L	L	

Modifiers

Table 2773: Properties of each modifier.

Id	Name	SBO
R01UU	R01UU	
L	L	

Product

Table 2774: Properties of each product.

Id	Name	SBO
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{923} = k_b \cdot [R01UU] \cdot [L]$$

(1871)

7.924 Reaction r924

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R01UG binds ligand

Reaction equation



Reactants

Table 2775: Properties of each reactant.

Id	Name	SBO
R01UG	R01UG	
L	L	

Modifiers

Table 2776: Properties of each modifier.

Id	Name	SBO
R01UG	R01UG	
L	L	

Product

Table 2777: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{924} = k_b \cdot [R01UG] \cdot [L]$$

(1873)

7.925 Reaction r925

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R01UL binds ligand

Reaction equation



Reactants

Table 2778: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	
L	L	

Modifiers

Table 2779: Properties of each modifier.

Id	Name	SBO
R01UL	R01UL	
L	L	

Product

Table 2780: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{925} = k_b \cdot [R01UL] \cdot [L]$$

(1875)

7.926 Reaction r926

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11UU binds ligand

Reaction equation



Reactants

Table 2781: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	
L	L	

Modifiers

Table 2782: Properties of each modifier.

Id	Name	SBO
R11UU	R11UU	
L	L	

Product

Table 2783: Properties of each product.

Id	Name	SBO
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{926} = k_b \cdot [R11UU] \cdot [L]$$

(1877)

7.927 Reaction r927

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11CU binds ligand

Reaction equation



Reactants

Table 2784: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	
L	L	

Modifiers

Table 2785: Properties of each modifier.

Id	Name	SBO
R11CU	R11CU	
L	L	

Product

Table 2786: Properties of each product.

Id	Name	SBO
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{927} = k_b \cdot [R11CU] \cdot [L]$$

(1879)

7.928 Reaction r928

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11LU binds ligand

Reaction equation



Reactants

Table 2787: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	
L	L	

Modifiers

Table 2788: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	
L	L	

Product

Table 2789: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{928} = k_b \cdot [R11LU] \cdot [L] \tag{1881}$$

7.929 Reaction r929

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11UG binds ligand

Reaction equation



Reactants

Table 2790: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	
L	L	

Modifiers

Table 2791: Properties of each modifier.

Id	Name	SBO
R11UG	R11UG	
L	L	

Product

Table 2792: Properties of each product.

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{929} = k_b \cdot [R11UG] \cdot [L]$$

(1883)

7.930 Reaction r930

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11UL binds ligand

Reaction equation



Reactants

Table 2793: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	
L	L	

Modifiers

Table 2794: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	
L	L	

Product

Table 2795: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{930} = k_b \cdot [R11UL] \cdot [L] \tag{1885}$$

7.931 Reaction r931

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11CG binds ligand

Reaction equation



Reactants

Table 2796: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	
L	L	

Modifiers

Table 2797: Properties of each modifier.

Id	Name	SBO
R11CG	R11CG	
L	L	

Product

Table 2798: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{931} = k_b \cdot [R11CG] \cdot [L]$$

(1887)

7.932 Reaction r932

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11CC binds ligand

Reaction equation



Reactants

Table 2799: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	
L	L	

Modifiers

Table 2800: Properties of each modifier.

Id	Name	SBO
R11CC	R11CC	
L	L	

Product

Table 2801: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{932} = k_b \cdot [R11CC] \cdot [L] \tag{1889}$$

7.933 Reaction r933

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R11LG binds ligand

Reaction equation



Reactants

Table 2802: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	
L	L	

Modifiers

Table 2803: Properties of each modifier.

Id	Name	SBO
R11LG	R11LG	
L	L	

Product

Table 2804: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{933} = k_b \cdot [R11LG] \cdot [L]$$

(1891)

7.934 Reaction r934

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R02UU binds ligand

Reaction equation



Reactants

Table 2805: Properties of each reactant.

Id	Name	SBO
R02UU	R02UU	
L	L	

Modifiers

Table 2806: Properties of each modifier.

Id	Name	SBO
R02UU	R02UU	
L	L	

Product

Table 2807: Properties of each product.

Id	Name	SBO
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{934} = k_b \cdot [R02UU] \cdot [L] \tag{1893}$$

7.935 Reaction r935

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R02UG binds ligand

Reaction equation



Reactants

Table 2808: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	
L	L	

Modifiers

Table 2809: Properties of each modifier.

Id	Name	SBO
R02UG	R02UG	
L	L	

Product

Table 2810: Properties of each product.

Id	Name	SBO
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{935} = k_b \cdot [R02UG] \cdot [L]$$

(1895)

7.936 Reaction r936

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R02UL binds ligand

Reaction equation



Reactants

Table 2811: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	
L	L	

Modifiers

Table 2812: Properties of each modifier.

Id	Name	SBO
R02UL	R02UL	
L	L	

Product

Table 2813: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{936} = k_b \cdot [R02UL] \cdot [L]$$

(1897)

7.937 Reaction r937

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12UU binds ligand

Reaction equation



Reactants

Table 2814: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	
L	L	

Modifiers

Table 2815: Properties of each modifier.

Id	Name	SBO
R12UU	R12UU	
L	L	

Product

Table 2816: Properties of each product.

Id	Name	SBO
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{937} = k_b \cdot [R12UU] \cdot [L] \tag{1899}$$

7.938 Reaction r938

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12CU binds ligand

Reaction equation



Reactants

Table 2817: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	
L	L	

Modifiers

Table 2818: Properties of each modifier.

Id	Name	SBO
R12CU	R12CU	
L	L	

Product

Table 2819: Properties of each product.

Id	Name	SBO
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{938} = k_b \cdot [R12CU] \cdot [L]$$

(1901)

7.939 Reaction r939

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12LU binds ligand

Reaction equation



Reactants

Table 2820: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	
L	L	

Modifiers

Table 2821: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	
L	L	

Product

Table 2822: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{939} = k_b \cdot [R12LU] \cdot [L]$$

(1903)

7.940 Reaction r940

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12UG binds ligand

Reaction equation



Reactants

Table 2823: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	
L	L	

Modifiers

Table 2824: Properties of each modifier.

Id	Name	SBO
R12UG	R12UG	
L	L	

Product

Table 2825: Properties of each product.

Id	Name	SBO
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{940} = k_b \cdot [R12UG] \cdot [L]$$

(1905)

7.941 Reaction r941

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12UL binds ligand

Reaction equation



Reactants

Table 2826: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	
L	L	

Modifiers

Table 2827: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	
L	L	

Product

Table 2828: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{941} = k_b \cdot [R12UL] \cdot [L]$$

(1907)

7.942 Reaction r942

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12CG binds ligand

Reaction equation



Reactants

Table 2829: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	
L	L	

Modifiers

Table 2830: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	
L	L	

Product

Table 2831: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{942} = k_b \cdot [R12CG] \cdot [L] \tag{1909}$$

7.943 Reaction r943

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12CC binds ligand

Reaction equation



Reactants

Table 2832: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	
L	L	

Modifiers

Table 2833: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	
L	L	

Product

Table 2834: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{943} = k_b \cdot [R12CC] \cdot [L] \tag{1911}$$

7.944 Reaction r944

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name R12LG binds ligand

Reaction equation



Reactants

Table 2835: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	
L	L	

Modifiers

Table 2836: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	
L	L	

Product

Table 2837: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{944} = k_b \cdot [R12LG] \cdot [L]$$

(1913)

7.945 Reaction r945

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc00UU binds ligand

Reaction equation



Reactants

Table 2838: Properties of each reactant.

Id	Name	SBO
Rc00UU	Rc00UU	
L	L	

Modifiers

Table 2839: Properties of each modifier.

Id	Name	SBO
Rc00UU	Rc00UU	
L	L	

Product

Table 2840: Properties of each product.

Id	Name	SBO
RcL00UU	RcL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{945} = k_{1b} \cdot [\text{Rc00UU}] \cdot [\text{L}]$$

(1915)

7.946 Reaction r946

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc10UU binds ligand

Reaction equation



Reactants

Table 2841: Properties of each reactant.

Id	Name	SBO
Rc10UU	Rc10UU	
L	L	

Modifiers

Table 2842: Properties of each modifier.

Id	Name	SBO
Rc10UU	Rc10UU	
L	L	

Product

Table 2843: Properties of each product.

Id	Name	SBO
RcL10UU	RcL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{946} = k_{1b} \cdot [\text{Rc10UU}] \cdot [\text{L}] \tag{1917}$$

7.947 Reaction r947

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc10CU binds ligand

Reaction equation



Reactants

Table 2844: Properties of each reactant.

Id	Name	SBO
Rc10CU	Rc10CU	
L	L	

Modifiers

Table 2845: Properties of each modifier.

Id	Name	SBO
Rc10CU	Rc10CU	
L	L	

Product

Table 2846: Properties of each product.

Id	Name	SBO
RcL10CU	RcL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{947} = k_{1b} \cdot [Rc10CU] \cdot [L]$$

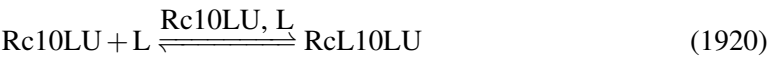
(1919)

7.948 Reaction r948

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc10LU binds ligand

Reaction equation



Reactants

Table 2847: Properties of each reactant.

Id	Name	SBO
Rc10LU	Rc10LU	
L	L	

Modifiers

Table 2848: Properties of each modifier.

Id	Name	SBO
Rc10LU	Rc10LU	
L	L	

Product

Table 2849: Properties of each product.

Id	Name	SBO
RcL10LU	RcL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{948} = k_{1b} \cdot [Rc10LU] \cdot [L]$$

(1921)

7.949 Reaction r949

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc01UU binds ligand

Reaction equation



Reactants

Table 2850: Properties of each reactant.

Id	Name	SBO
Rc01UU	Rc01UU	
L	L	

Modifiers

Table 2851: Properties of each modifier.

Id	Name	SBO
Rc01UU	Rc01UU	
L	L	

Product

Table 2852: Properties of each product.

Id	Name	SBO
RcL01UU	RcL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{949} = k_{1b} \cdot [Rc01UU] \cdot [L]$$

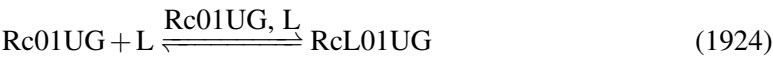
(1923)

7.950 Reaction r950

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc01UG binds ligand

Reaction equation



Reactants

Table 2853: Properties of each reactant.

Id	Name	SBO
Rc01UG	Rc01UG	
L	L	

Modifiers

Table 2854: Properties of each modifier.

Id	Name	SBO
Rc01UG	Rc01UG	
L	L	

Product

Table 2855: Properties of each product.

Id	Name	SBO
RcL01UG	RcL01UG	

Kinetic Law

Derived unit contains undeclared units

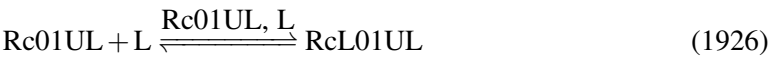
$$v_{950} = k_{1b} \cdot [\text{Rc01UG}] \cdot [\text{L}] \tag{1925}$$

7.951 Reaction r951

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc01UL binds ligand

Reaction equation



Reactants

Table 2856: Properties of each reactant.

Id	Name	SBO
Rc01UL	Rc01UL	
L	L	

Modifiers

Table 2857: Properties of each modifier.

Id	Name	SBO
Rc01UL	Rc01UL	
L	L	

Product

Table 2858: Properties of each product.

Id	Name	SBO
RcL01UL	RcL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{951} = k_{1b} \cdot [Rc01UL] \cdot [L]$$

(1927)

7.952 Reaction r952

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11UU binds ligand

Reaction equation



Reactants

Table 2859: Properties of each reactant.

Id	Name	SBO
Rc11UU	Rc11UU	
L	L	

Modifiers

Table 2860: Properties of each modifier.

Id	Name	SBO
Rc11UU	Rc11UU	
L	L	

Product

Table 2861: Properties of each product.

Id	Name	SBO
RcL11UU	RcL11UU	

Kinetic Law

Derived unit contains undeclared units

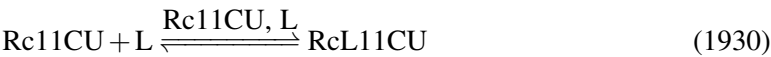
$$v_{952} = k_{1b} \cdot [\text{Rc11UU}] \cdot [\text{L}] \tag{1929}$$

7.953 Reaction r953

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11CU binds ligand

Reaction equation



Reactants

Table 2862: Properties of each reactant.

Id	Name	SBO
Rc11CU	Rc11CU	
L	L	

Modifiers

Table 2863: Properties of each modifier.

Id	Name	SBO
Rc11CU	Rc11CU	
L	L	

Product

Table 2864: Properties of each product.

Id	Name	SBO
RcL11CU	RcL11CU	

Kinetic Law

Derived unit contains undeclared units

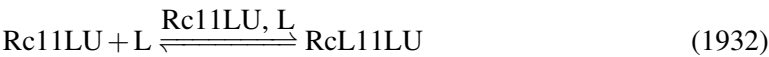
$$v_{953} = k_{1b} \cdot [\text{Rc11CU}] \cdot [\text{L}] \tag{1931}$$

7.954 Reaction r954

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11LU binds ligand

Reaction equation



Reactants

Table 2865: Properties of each reactant.

Id	Name	SBO
Rc11LU	Rc11LU	
L	L	

Modifiers

Table 2866: Properties of each modifier.

Id	Name	SBO
Rc11LU	Rc11LU	
L	L	

Product

Table 2867: Properties of each product.

Id	Name	SBO
RcL11LU	RcL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{954} = k_{1b} \cdot [Rc11LU] \cdot [L]$$

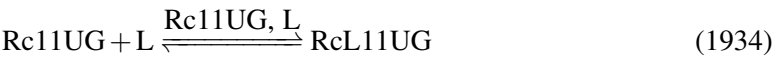
(1933)

7.955 Reaction r955

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11UG binds ligand

Reaction equation



Reactants

Table 2868: Properties of each reactant.

Id	Name	SBO
Rc11UG	Rc11UG	
L	L	

Modifiers

Table 2869: Properties of each modifier.

Id	Name	SBO
Rc11UG	Rc11UG	
L	L	

Product

Table 2870: Properties of each product.

Id	Name	SBO
RcL11UG	RcL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{955} = k_{1b} \cdot [Rc11UG] \cdot [L]$$

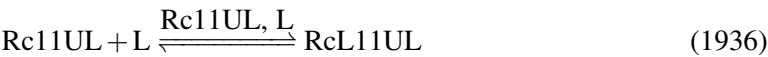
(1935)

7.956 Reaction r956

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11UL binds ligand

Reaction equation



Reactants

Table 2871: Properties of each reactant.

Id	Name	SBO
Rc11UL	Rc11UL	
L	L	

Modifiers

Table 2872: Properties of each modifier.

Id	Name	SBO
Rc11UL	Rc11UL	
L	L	

Product

Table 2873: Properties of each product.

Id	Name	SBO
RcL11UL	RcL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{956} = k_{1b} \cdot [Rc11UL] \cdot [L]$$

(1937)

7.957 Reaction r957

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11CG binds ligand

Reaction equation



Reactants

Table 2874: Properties of each reactant.

Id	Name	SBO
Rc11CG	Rc11CG	
L	L	

Modifiers

Table 2875: Properties of each modifier.

Id	Name	SBO
Rc11CG	Rc11CG	
L	L	

Product

Table 2876: Properties of each product.

Id	Name	SBO
RcL11CG	RcL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{957} = k_{1b} \cdot [\text{Rc11CG}] \cdot [\text{L}]$$

(1939)

7.958 Reaction r958

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11CC binds ligand

Reaction equation



Reactants

Table 2877: Properties of each reactant.

Id	Name	SBO
Rc11CC	Rc11CC	
L	L	

Modifiers

Table 2878: Properties of each modifier.

Id	Name	SBO
Rc11CC	Rc11CC	
L	L	

Product

Table 2879: Properties of each product.

Id	Name	SBO
RcL11CC	RcL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{958} = k_{1b} \cdot [Rc11CC] \cdot [L]$$

(1941)

7.959 Reaction r959

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc11LG binds ligand

Reaction equation



Reactants

Table 2880: Properties of each reactant.

Id	Name	SBO
Rc11LG	Rc11LG	
L	L	

Modifiers

Table 2881: Properties of each modifier.

Id	Name	SBO
Rc11LG	Rc11LG	
L	L	

Product

Table 2882: Properties of each product.

Id	Name	SBO
RcL11LG	RcL11LG	

Kinetic Law

Derived unit contains undeclared units

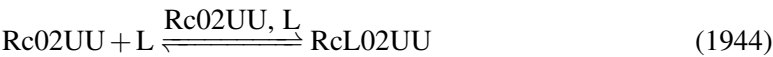
$$v_{959} = k_{1b} \cdot [Rc11LG] \cdot [L] \tag{1943}$$

7.960 Reaction r960

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc02UU binds ligand

Reaction equation



Reactants

Table 2883: Properties of each reactant.

Id	Name	SBO
Rc02UU	Rc02UU	
L	L	

Modifiers

Table 2884: Properties of each modifier.

Id	Name	SBO
Rc02UU	Rc02UU	
L	L	

Product

Table 2885: Properties of each product.

Id	Name	SBO
RcL02UU	RcL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{960} = k_{1b} \cdot [\text{Rc02UU}] \cdot [\text{L}]$$

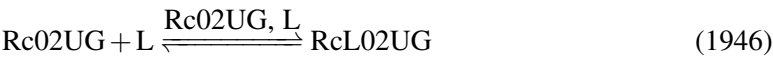
(1945)

7.961 Reaction r961

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc02UG binds ligand

Reaction equation



Reactants

Table 2886: Properties of each reactant.

Id	Name	SBO
Rc02UG	Rc02UG	
L	L	

Modifiers

Table 2887: Properties of each modifier.

Id	Name	SBO
Rc02UG	Rc02UG	
L	L	

Product

Table 2888: Properties of each product.

Id	Name	SBO
RcL02UG	RcL02UG	

Kinetic Law

Derived unit contains undeclared units

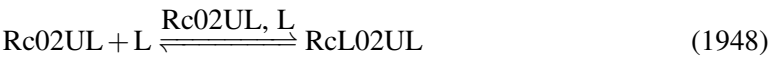
$$v_{961} = k_{1b} \cdot [\text{Rc02UG}] \cdot [\text{L}] \tag{1947}$$

7.962 Reaction r962

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc02UL binds ligand

Reaction equation



Reactants

Table 2889: Properties of each reactant.

Id	Name	SBO
Rc02UL	Rc02UL	
L	L	

Modifiers

Table 2890: Properties of each modifier.

Id	Name	SBO
Rc02UL	Rc02UL	
L	L	

Product

Table 2891: Properties of each product.

Id	Name	SBO
RcL02UL	RcL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{962} = k_{1b} \cdot [Rc02UL] \cdot [L]$$

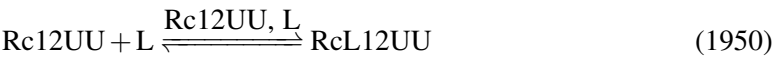
(1949)

7.963 Reaction r963

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12UU binds ligand

Reaction equation



Reactants

Table 2892: Properties of each reactant.

Id	Name	SBO
Rc12UU	Rc12UU	
L	L	

Modifiers

Table 2893: Properties of each modifier.

Id	Name	SBO
Rc12UU	Rc12UU	
L	L	

Product

Table 2894: Properties of each product.

Id	Name	SBO
RcL12UU	RcL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{963} = k_{1b} \cdot [Rc12UU] \cdot [L]$$

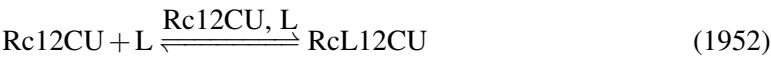
(1951)

7.964 Reaction r964

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12CU binds ligand

Reaction equation



Reactants

Table 2895: Properties of each reactant.

Id	Name	SBO
Rc12CU	Rc12CU	
L	L	

Modifiers

Table 2896: Properties of each modifier.

Id	Name	SBO
Rc12CU	Rc12CU	
L	L	

Product

Table 2897: Properties of each product.

Id	Name	SBO
RcL12CU	RcL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{964} = k_{1b} \cdot [Rc12CU] \cdot [L]$$

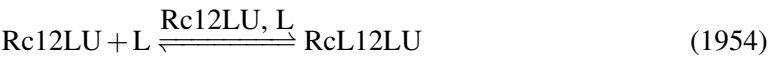
(1953)

7.965 Reaction r965

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12LU binds ligand

Reaction equation



Reactants

Table 2898: Properties of each reactant.

Id	Name	SBO
Rc12LU	Rc12LU	
L	L	

Modifiers

Table 2899: Properties of each modifier.

Id	Name	SBO
Rc12LU	Rc12LU	
L	L	

Product

Table 2900: Properties of each product.

Id	Name	SBO
RcL12LU	RcL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{965} = k_{1b} \cdot [Rc12LU] \cdot [L]$$

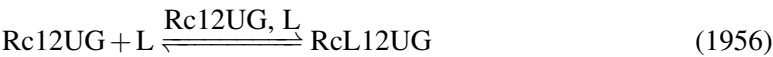
(1955)

7.966 Reaction r966

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12UG binds ligand

Reaction equation



Reactants

Table 2901: Properties of each reactant.

Id	Name	SBO
Rc12UG	Rc12UG	
L	L	

Modifiers

Table 2902: Properties of each modifier.

Id	Name	SBO
Rc12UG	Rc12UG	
L	L	

Product

Table 2903: Properties of each product.

Id	Name	SBO
RcL12UG	RcL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{966} = k_{1b} \cdot [\text{Rc12UG}] \cdot [\text{L}]$$

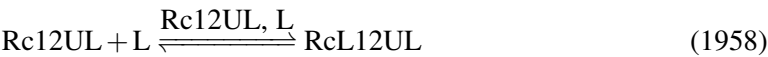
(1957)

7.967 Reaction r967

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12UL binds ligand

Reaction equation



Reactants

Table 2904: Properties of each reactant.

Id	Name	SBO
Rc12UL	Rc12UL	
L	L	

Modifiers

Table 2905: Properties of each modifier.

Id	Name	SBO
Rc12UL	Rc12UL	
L	L	

Product

Table 2906: Properties of each product.

Id	Name	SBO
RcL12UL	RcL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{967} = k_{1b} \cdot [Rc12UL] \cdot [L]$$

(1959)

7.968 Reaction r968

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12CG binds ligand

Reaction equation



Reactants

Table 2907: Properties of each reactant.

Id	Name	SBO
Rc12CG	Rc12CG	
L	L	

Modifiers

Table 2908: Properties of each modifier.

Id	Name	SBO
Rc12CG	Rc12CG	
L	L	

Product

Table 2909: Properties of each product.

Id	Name	SBO
RcL12CG	RcL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{968} = k_{1b} \cdot [\text{Rc12CG}] \cdot [\text{L}]$$

(1961)

7.969 Reaction r969

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12CC binds ligand

Reaction equation



Reactants

Table 2910: Properties of each reactant.

Id	Name	SBO
Rc12CC	Rc12CC	
L	L	

Modifiers

Table 2911: Properties of each modifier.

Id	Name	SBO
Rc12CC	Rc12CC	
L	L	

Product

Table 2912: Properties of each product.

Id	Name	SBO
RcL12CC	RcL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{969} = k_{1b} \cdot [\text{Rc12CC}] \cdot [\text{L}]$$

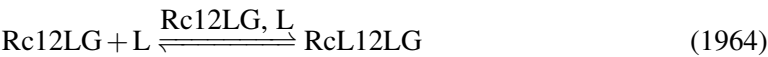
(1963)

7.970 Reaction r970

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Rc12LG binds ligand

Reaction equation



Reactants

Table 2913: Properties of each reactant.

Id	Name	SBO
Rc12LG	Rc12LG	
L	L	

Modifiers

Table 2914: Properties of each modifier.

Id	Name	SBO
Rc12LG	Rc12LG	
L	L	

Product

Table 2915: Properties of each product.

Id	Name	SBO
RcL12LG	RcL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{970} = k_{1b} \cdot [Rc12LG] \cdot [L]$$

(1965)

7.971 Reaction r971

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di00UU partner binds ligand

Reaction equation



Reactant

Table 2916: Properties of each reactant.

Id	Name	SBO
Di00UU	Di00UU	

Modifiers

Table 2917: Properties of each modifier.

Id	Name	SBO
L	L	
Di00UU	Di00UU	
L	L	

Product

Table 2918: Properties of each product.

Id	Name	SBO
Da00UU	Da00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{971} = k_b \cdot [\text{Di00UU}] \cdot [\text{L}]$$

(1967)

7.972 Reaction r972

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di10UU partner binds ligand

Reaction equation



Reactant

Table 2919: Properties of each reactant.

Id	Name	SBO
Di10UU	Di10UU	

Modifiers

Table 2920: Properties of each modifier.

Id	Name	SBO
L	L	
Di10UU	Di10UU	
L	L	

Product

Table 2921: Properties of each product.

Id	Name	SBO
Da10UU	Da10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{972} = k_b \cdot [\text{Di10UU}] \cdot [\text{L}]$$

(1969)

7.973 Reaction r973

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di10CU partner binds ligand

Reaction equation



Reactant

Table 2922: Properties of each reactant.

Id	Name	SBO
Di10CU	Di10CU	

Modifiers

Table 2923: Properties of each modifier.

Id	Name	SBO
L	L	
Di10CU	Di10CU	
L	L	

Product

Table 2924: Properties of each product.

Id	Name	SBO
Da10CU	Da10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{973} = k_b \cdot [\text{Di10CU}] \cdot [\text{L}]$$

(1971)

7.974 Reaction r974

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di10LU partner binds ligand

Reaction equation



Reactant

Table 2925: Properties of each reactant.

Id	Name	SBO
Di10LU	Di10LU	

Modifiers

Table 2926: Properties of each modifier.

Id	Name	SBO
L	L	
Di10LU	Di10LU	
L	L	

Product

Table 2927: Properties of each product.

Id	Name	SBO
Da10LU	Da10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{974} = k_b \cdot [\text{Di10LU}] \cdot [\text{L}]$$

(1973)

7.975 Reaction r975

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di01UU partner binds ligand

Reaction equation



Reactant

Table 2928: Properties of each reactant.

Id	Name	SBO
Di01UU	Di01UU	

Modifiers

Table 2929: Properties of each modifier.

Id	Name	SBO
L	L	
Di01UU	Di01UU	
L	L	

Product

Table 2930: Properties of each product.

Id	Name	SBO
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{975} = k_b \cdot [\text{Di01UU}] \cdot [\text{L}]$$

(1975)

7.976 Reaction r976

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di01UG partner binds ligand

Reaction equation



Reactant

Table 2931: Properties of each reactant.

Id	Name	SBO
Di01UG	Di01UG	

Modifiers

Table 2932: Properties of each modifier.

Id	Name	SBO
L	L	
Di01UG	Di01UG	
L	L	

Product

Table 2933: Properties of each product.

Id	Name	SBO
Da01UG	Da01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{976} = k_b \cdot [\text{Di01UG}] \cdot [\text{L}]$$

(1977)

7.977 Reaction r977

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di01UL partner binds ligand

Reaction equation



Reactant

Table 2934: Properties of each reactant.

Id	Name	SBO
Di01UL	Di01UL	

Modifiers

Table 2935: Properties of each modifier.

Id	Name	SBO
L	L	
Di01UL	Di01UL	
L	L	

Product

Table 2936: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{977} = k_b \cdot [\text{Di01UL}] \cdot [\text{L}]$$

(1979)

7.978 Reaction r978

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11UU partner binds ligand

Reaction equation



Reactant

Table 2937: Properties of each reactant.

Id	Name	SBO
Di11UU	Di11UU	

Modifiers

Table 2938: Properties of each modifier.

Id	Name	SBO
L	L	
Di11UU	Di11UU	
L	L	

Product

Table 2939: Properties of each product.

Id	Name	SBO
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{978} = k_b \cdot [\text{Di11UU}] \cdot [\text{L}]$$

(1981)

7.979 Reaction r979

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11CU partner binds ligand

Reaction equation



Reactant

Table 2940: Properties of each reactant.

Id	Name	SBO
Di11CU	Di11CU	

Modifiers

Table 2941: Properties of each modifier.

Id	Name	SBO
L	L	
Di11CU	Di11CU	
L	L	

Product

Table 2942: Properties of each product.

Id	Name	SBO
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{979} = k_b \cdot [\text{Di11CU}] \cdot [\text{L}]$$

(1983)

7.980 Reaction r980

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11LU partner binds ligand

Reaction equation



Reactant

Table 2943: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	

Modifiers

Table 2944: Properties of each modifier.

Id	Name	SBO
L	L	
Di11LU	Di11LU	
L	L	

Product

Table 2945: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{980} = k_b \cdot [\text{Di11LU}] \cdot [\text{L}]$$

(1985)

7.981 Reaction r981

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11UG partner binds ligand

Reaction equation



Reactant

Table 2946: Properties of each reactant.

Id	Name	SBO
Di11UG	Di11UG	

Modifiers

Table 2947: Properties of each modifier.

Id	Name	SBO
L	L	
Di11UG	Di11UG	
L	L	

Product

Table 2948: Properties of each product.

Id	Name	SBO
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{981} = k_b \cdot [\text{Di11UG}] \cdot [\text{L}]$$

(1987)

7.982 Reaction r982

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11UL partner binds ligand

Reaction equation



Reactant

Table 2949: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	

Modifiers

Table 2950: Properties of each modifier.

Id	Name	SBO
L	L	
Di11UL	Di11UL	
L	L	

Product

Table 2951: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{982} = k_b \cdot [\text{Di11UL}] \cdot [\text{L}]$$

(1989)

7.983 Reaction r983

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11CG partner binds ligand

Reaction equation



Reactant

Table 2952: Properties of each reactant.

Id	Name	SBO
Di11CG	Di11CG	

Modifiers

Table 2953: Properties of each modifier.

Id	Name	SBO
L	L	
Di11CG	Di11CG	
L	L	

Product

Table 2954: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{983} = k_b \cdot [\text{Di11CG}] \cdot [\text{L}]$$

(1991)

7.984 Reaction r984

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11CC partner binds ligand

Reaction equation



Reactant

Table 2955: Properties of each reactant.

Id	Name	SBO
Di11CC	Di11CC	

Modifiers

Table 2956: Properties of each modifier.

Id	Name	SBO
L	L	
Di11CC	Di11CC	
L	L	

Product

Table 2957: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{984} = k_b \cdot [\text{Di11CC}] \cdot [\text{L}] \tag{1993}$$

7.985 Reaction r985

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di11LG partner binds ligand

Reaction equation



Reactant

Table 2958: Properties of each reactant.

Id	Name	SBO
Di11LG	Di11LG	

Modifiers

Table 2959: Properties of each modifier.

Id	Name	SBO
L	L	
Di11LG	Di11LG	
L	L	

Product

Table 2960: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{985} = k_b \cdot [\text{Di11LG}] \cdot [\text{L}]$$

(1995)

7.986 Reaction r986

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di02UU partner binds ligand

Reaction equation



Reactant

Table 2961: Properties of each reactant.

Id	Name	SBO
Di02UU	Di02UU	

Modifiers

Table 2962: Properties of each modifier.

Id	Name	SBO
L	L	
Di02UU	Di02UU	
L	L	

Product

Table 2963: Properties of each product.

Id	Name	SBO
Da02UU	Da02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{986} = k_b \cdot [\text{Di02UU}] \cdot [\text{L}]$$

(1997)

7.987 Reaction r987

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di02UG partner binds ligand

Reaction equation



Reactant

Table 2964: Properties of each reactant.

Id	Name	SBO
Di02UG	Di02UG	

Modifiers

Table 2965: Properties of each modifier.

Id	Name	SBO
L	L	
Di02UG	Di02UG	
L	L	

Product

Table 2966: Properties of each product.

Id	Name	SBO
Da02UG	Da02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{987} = k_b \cdot [\text{Di02UG}] \cdot [\text{L}]$$

(1999)

7.988 Reaction r988

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di02UL partner binds ligand

Reaction equation



Reactant

Table 2967: Properties of each reactant.

Id	Name	SBO
Di02UL	Di02UL	

Modifiers

Table 2968: Properties of each modifier.

Id	Name	SBO
L	L	
Di02UL	Di02UL	
L	L	

Product

Table 2969: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{988} = k_b \cdot [\text{Di02UL}] \cdot [\text{L}]$$

(2001)

7.989 Reaction r989

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12UU partner binds ligand

Reaction equation



Reactant

Table 2970: Properties of each reactant.

Id	Name	SBO
Di12UU	Di12UU	

Modifiers

Table 2971: Properties of each modifier.

Id	Name	SBO
L	L	
Di12UU	Di12UU	
L	L	

Product

Table 2972: Properties of each product.

Id	Name	SBO
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{989} = k_b \cdot [\text{Di12UU}] \cdot [\text{L}]$$

(2003)

7.990 Reaction r990

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12CU partner binds ligand

Reaction equation



Reactant

Table 2973: Properties of each reactant.

Id	Name	SBO
Di12CU	Di12CU	

Modifiers

Table 2974: Properties of each modifier.

Id	Name	SBO
L	L	
Di12CU	Di12CU	
L	L	

Product

Table 2975: Properties of each product.

Id	Name	SBO
Da12CU	Da12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{990} = k_b \cdot [\text{Di12CU}] \cdot [\text{L}]$$

(2005)

7.991 Reaction r991

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12LU partner binds ligand

Reaction equation



Reactant

Table 2976: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	

Modifiers

Table 2977: Properties of each modifier.

Id	Name	SBO
L	L	
Di12LU	Di12LU	
L	L	

Product

Table 2978: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{991} = k_b \cdot [\text{Di12LU}] \cdot [\text{L}]$$

(2007)

7.992 Reaction r992

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12UG partner binds ligand

Reaction equation



Reactant

Table 2979: Properties of each reactant.

Id	Name	SBO
Di12UG	Di12UG	

Modifiers

Table 2980: Properties of each modifier.

Id	Name	SBO
L	L	
Di12UG	Di12UG	
L	L	

Product

Table 2981: Properties of each product.

Id	Name	SBO
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{992} = k_b \cdot [\text{Di12UG}] \cdot [\text{L}]$$

(2009)

7.993 Reaction r993

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12UL partner binds ligand

Reaction equation



Reactant

Table 2982: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifiers

Table 2983: Properties of each modifier.

Id	Name	SBO
L	L	
Di12UL	Di12UL	
L	L	

Product

Table 2984: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{993} = k_b \cdot [\text{Di12UL}] \cdot [\text{L}]$$

(2011)

7.994 Reaction r994

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12CG partner binds ligand

Reaction equation



Reactant

Table 2985: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	

Modifiers

Table 2986: Properties of each modifier.

Id	Name	SBO
L	L	
Di12CG	Di12CG	
L	L	

Product

Table 2987: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{994} = k_b \cdot [\text{Di12CG}] \cdot [\text{L}]$$

(2013)

7.995 Reaction r995

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12CC partner binds ligand

Reaction equation



Reactant

Table 2988: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	

Modifiers

Table 2989: Properties of each modifier.

Id	Name	SBO
L	L	
Di12CC	Di12CC	
L	L	

Product

Table 2990: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{995} = k_b \cdot [\text{Di12CC}] \cdot [\text{L}]$$

(2015)

7.996 Reaction r996

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name Di12LG partner binds ligand

Reaction equation



Reactant

Table 2991: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	

Modifiers

Table 2992: Properties of each modifier.

Id	Name	SBO
L	L	
Di12LG	Di12LG	
L	L	

Product

Table 2993: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{996} = k_b \cdot [\text{Di12LG}] \cdot [\text{L}] \tag{2017}$$

7.997 Reaction r997

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di00UU binds ligand

Reaction equation



Reactants

Table 2994: Properties of each reactant.

Id	Name	SBO
Di00UU	Di00UU	
L	L	

Modifiers

Table 2995: Properties of each modifier.

Id	Name	SBO
Di00UU	Di00UU	
L	L	

Product

Table 2996: Properties of each product.

Id	Name	SBO
DiL00UU	DiL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{997} = k_b \cdot [\text{Di00UU}] \cdot [\text{L}]$$

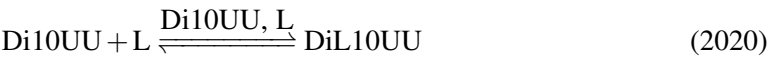
(2019)

7.998 Reaction r998

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di10UU binds ligand

Reaction equation



Reactants

Table 2997: Properties of each reactant.

Id	Name	SBO
Di10UU	Di10UU	
L	L	

Modifiers

Table 2998: Properties of each modifier.

Id	Name	SBO
Di10UU	Di10UU	
L	L	

Product

Table 2999: Properties of each product.

Id	Name	SBO
DiL10UU	DiL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{998} = k_b \cdot [\text{Di10UU}] \cdot [\text{L}] \tag{2021}$$

7.999 Reaction r999

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di10CU binds ligand

Reaction equation



Reactants

Table 3000: Properties of each reactant.

Id	Name	SBO
Di10CU	Di10CU	
L	L	

Modifiers

Table 3001: Properties of each modifier.

Id	Name	SBO
Di10CU	Di10CU	
L	L	

Product

Table 3002: Properties of each product.

Id	Name	SBO
DiL10CU	DiL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{999} = k_b \cdot [\text{Di10CU}] \cdot [\text{L}]$$

(2023)

7.1000 Reaction r1000

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di10LU binds ligand

Reaction equation



Reactants

Table 3003: Properties of each reactant.

Id	Name	SBO
Di10LU	Di10LU	
L	L	

Modifiers

Table 3004: Properties of each modifier.

Id	Name	SBO
Di10LU	Di10LU	
L	L	

Product

Table 3005: Properties of each product.

Id	Name	SBO
DiL10LU	DiL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1000} = k_b \cdot [\text{Di10LU}] \cdot [\text{L}] \tag{2025}$$

7.1001 Reaction r1001

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di01UU binds ligand

Reaction equation



Reactants

Table 3006: Properties of each reactant.

Id	Name	SBO
Di01UU	Di01UU	
L	L	

Modifiers

Table 3007: Properties of each modifier.

Id	Name	SBO
Di01UU	Di01UU	
L	L	

Product

Table 3008: Properties of each product.

Id	Name	SBO
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1001} = k_b \cdot [\text{Di01UU}] \cdot [\text{L}] \tag{2027}$$

7.1002 Reaction r1002

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di01UG binds ligand

Reaction equation



Reactants

Table 3009: Properties of each reactant.

Id	Name	SBO
Di01UG	Di01UG	
L	L	

Modifiers

Table 3010: Properties of each modifier.

Id	Name	SBO
Di01UG	Di01UG	
L	L	

Product

Table 3011: Properties of each product.

Id	Name	SBO
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1002} = k_b \cdot [\text{Di01UG}] \cdot [\text{L}]$$

(2029)

7.1003 Reaction r1003

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di01UL binds ligand

Reaction equation



Reactants

Table 3012: Properties of each reactant.

Id	Name	SBO
Di01UL	Di01UL	
L	L	

Modifiers

Table 3013: Properties of each modifier.

Id	Name	SBO
Di01UL	Di01UL	
L	L	

Product

Table 3014: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1003} = k_b \cdot [\text{Di01UL}] \cdot [\text{L}]$$

(2031)

7.1004 Reaction r1004

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11UU binds ligand

Reaction equation



Reactants

Table 3015: Properties of each reactant.

Id	Name	SBO
Di11UU	Di11UU	
L	L	

Modifiers

Table 3016: Properties of each modifier.

Id	Name	SBO
Di11UU	Di11UU	
L	L	

Product

Table 3017: Properties of each product.

Id	Name	SBO
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1004} = k_b \cdot [\text{Di11UU}] \cdot [\text{L}] \tag{2033}$$

7.1005 Reaction r1005

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11CU binds ligand

Reaction equation



Reactants

Table 3018: Properties of each reactant.

Id	Name	SBO
Di11CU	Di11CU	
L	L	

Modifiers

Table 3019: Properties of each modifier.

Id	Name	SBO
Di11CU	Di11CU	
L	L	

Product

Table 3020: Properties of each product.

Id	Name	SBO
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1005} = k_b \cdot [\text{Di11CU}] \cdot [\text{L}] \tag{2035}$$

7.1006 Reaction r1006

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11LU binds ligand

Reaction equation



Reactants

Table 3021: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	
L	L	

Modifiers

Table 3022: Properties of each modifier.

Id	Name	SBO
Di11LU	Di11LU	
L	L	

Product

Table 3023: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1006} = k_b \cdot [\text{Di11LU}] \cdot [\text{L}] \tag{2037}$$

7.1007 Reaction r1007

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11UG binds ligand

Reaction equation



Reactants

Table 3024: Properties of each reactant.

Id	Name	SBO
Di11UG	Di11UG	
L	L	

Modifiers

Table 3025: Properties of each modifier.

Id	Name	SBO
Di11UG	Di11UG	
L	L	

Product

Table 3026: Properties of each product.

Id	Name	SBO
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1007} = k_b \cdot [\text{Di11UG}] \cdot [\text{L}]$$

(2039)

7.1008 Reaction r1008

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11UL binds ligand

Reaction equation



Reactants

Table 3027: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	
L	L	

Modifiers

Table 3028: Properties of each modifier.

Id	Name	SBO
Di11UL	Di11UL	
L	L	

Product

Table 3029: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1008} = k_b \cdot [\text{Di11UL}] \cdot [\text{L}] \tag{2041}$$

7.1009 Reaction r1009

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11CG binds ligand

Reaction equation



Reactants

Table 3030: Properties of each reactant.

Id	Name	SBO
Di11CG	Di11CG	
L	L	

Modifiers

Table 3031: Properties of each modifier.

Id	Name	SBO
Di11CG	Di11CG	
L	L	

Product

Table 3032: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1009} = k_b \cdot [\text{Di11CG}] \cdot [\text{L}] \tag{2043}$$

7.1010 Reaction r1010

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11CC binds ligand

Reaction equation



Reactants

Table 3033: Properties of each reactant.

Id	Name	SBO
Di11CC	Di11CC	
L	L	

Modifiers

Table 3034: Properties of each modifier.

Id	Name	SBO
Di11CC	Di11CC	
L	L	

Product

Table 3035: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1010} = k_b \cdot [\text{Di11CC}] \cdot [\text{L}] \tag{2045}$$

7.1011 Reaction r1011

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di11LG binds ligand

Reaction equation



Reactants

Table 3036: Properties of each reactant.

Id	Name	SBO
Di11LG	Di11LG	
L	L	

Modifiers

Table 3037: Properties of each modifier.

Id	Name	SBO
Di11LG	Di11LG	
L	L	

Product

Table 3038: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1011} = k_b \cdot [\text{Di11LG}] \cdot [\text{L}] \tag{2047}$$

7.1012 Reaction r1012

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di02UU binds ligand

Reaction equation



Reactants

Table 3039: Properties of each reactant.

Id	Name	SBO
Di02UU	Di02UU	
L	L	

Modifiers

Table 3040: Properties of each modifier.

Id	Name	SBO
Di02UU	Di02UU	
L	L	

Product

Table 3041: Properties of each product.

Id	Name	SBO
DiL02UU	DiL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1012} = k_b \cdot [\text{Di02UU}] \cdot [\text{L}] \tag{2049}$$

7.1013 Reaction r1013

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di02UG binds ligand

Reaction equation



Reactants

Table 3042: Properties of each reactant.

Id	Name	SBO
Di02UG	Di02UG	
L	L	

Modifiers

Table 3043: Properties of each modifier.

Id	Name	SBO
Di02UG	Di02UG	
L	L	

Product

Table 3044: Properties of each product.

Id	Name	SBO
DiL02UG	DiL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1013} = k_b \cdot [\text{Di02UG}] \cdot [\text{L}] \tag{2051}$$

7.1014 Reaction r1014

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di02UL binds ligand

Reaction equation



Reactants

Table 3045: Properties of each reactant.

Id	Name	SBO
Di02UL	Di02UL	
L	L	

Modifiers

Table 3046: Properties of each modifier.

Id	Name	SBO
Di02UL	Di02UL	
L	L	

Product

Table 3047: Properties of each product.

Id	Name	SBO
DiL02UL	DiL02UL	

Kinetic Law

Derived unit contains undeclared units

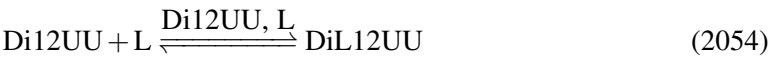
$$v_{1014} = k_b \cdot [\text{Di02UL}] \cdot [\text{L}] \tag{2053}$$

7.1015 Reaction r1015

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12UU binds ligand

Reaction equation



Reactants

Table 3048: Properties of each reactant.

Id	Name	SBO
Di12UU	Di12UU	
L	L	

Modifiers

Table 3049: Properties of each modifier.

Id	Name	SBO
Di12UU	Di12UU	
L	L	

Product

Table 3050: Properties of each product.

Id	Name	SBO
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1015} = k_b \cdot [\text{Di12UU}] \cdot [\text{L}]$$

(2055)

7.1016 Reaction r1016

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12CU binds ligand

Reaction equation



Reactants

Table 3051: Properties of each reactant.

Id	Name	SBO
Di12CU	Di12CU	
L	L	

Modifiers

Table 3052: Properties of each modifier.

Id	Name	SBO
Di12CU	Di12CU	
L	L	

Product

Table 3053: Properties of each product.

Id	Name	SBO
DiL12CU	DiL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1016} = k_b \cdot [\text{Di12CU}] \cdot [\text{L}] \tag{2057}$$

7.1017 Reaction r1017

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12LU binds ligand

Reaction equation



Reactants

Table 3054: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	
L	L	

Modifiers

Table 3055: Properties of each modifier.

Id	Name	SBO
Di12LU	Di12LU	
L	L	

Product

Table 3056: Properties of each product.

Id	Name	SBO
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1017} = k_b \cdot [\text{Di12LU}] \cdot [\text{L}] \tag{2059}$$

7.1018 Reaction r1018

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12UG binds ligand

Reaction equation



Reactants

Table 3057: Properties of each reactant.

Id	Name	SBO
Di12UG	Di12UG	
L	L	

Modifiers

Table 3058: Properties of each modifier.

Id	Name	SBO
Di12UG	Di12UG	
L	L	

Product

Table 3059: Properties of each product.

Id	Name	SBO
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1018} = k_b \cdot [\text{Di12UG}] \cdot [\text{L}] \tag{2061}$$

7.1019 Reaction r1019

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12UL binds ligand

Reaction equation



Reactants

Table 3060: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	
L	L	

Modifiers

Table 3061: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	
L	L	

Product

Table 3062: Properties of each product.

Id	Name	SBO
DiL12UL	DiL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1019} = k_b \cdot [\text{Di12UL}] \cdot [\text{L}] \tag{2063}$$

7.1020 Reaction r1020

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12CG binds ligand

Reaction equation



Reactants

Table 3063: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	
L	L	

Modifiers

Table 3064: Properties of each modifier.

Id	Name	SBO
Di12CG	Di12CG	
L	L	

Product

Table 3065: Properties of each product.

Id	Name	SBO
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1020} = k_b \cdot [\text{Di12CG}] \cdot [\text{L}] \tag{2065}$$

7.1021 Reaction r1021

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12CC binds ligand

Reaction equation



Reactants

Table 3066: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	
L	L	

Modifiers

Table 3067: Properties of each modifier.

Id	Name	SBO
Di12CC	Di12CC	
L	L	

Product

Table 3068: Properties of each product.

Id	Name	SBO
DiL12CC	DiL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1021} = k_b \cdot [\text{Di12CC}] \cdot [\text{L}]$$

(2067)

7.1022 Reaction r1022

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Di12LG binds ligand

Reaction equation



Reactants

Table 3069: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	
L	L	

Modifiers

Table 3070: Properties of each modifier.

Id	Name	SBO
Di12LG	Di12LG	
L	L	

Product

Table 3071: Properties of each product.

Id	Name	SBO
DiL12LG	DiL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1022} = k_b \cdot [\text{Di12LG}] \cdot [\text{L}] \tag{2069}$$

7.1023 Reaction r1023

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da00UU binds ligand

Reaction equation



Reactants

Table 3072: Properties of each reactant.

Id	Name	SBO
Da00UU	Da00UU	
L	L	

Modifiers

Table 3073: Properties of each modifier.

Id	Name	SBO
Da00UU	Da00UU	
L	L	

Product

Table 3074: Properties of each product.

Id	Name	SBO
DaL00UU	DaL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1023} = k_b \cdot [\text{Da00UU}] \cdot [\text{L}]$$

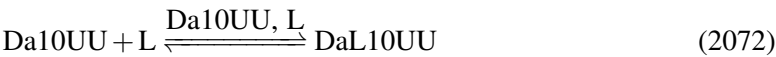
(2071)

7.1024 Reaction r1024

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da10UU binds ligand

Reaction equation



Reactants

Table 3075: Properties of each reactant.

Id	Name	SBO
Da10UU	Da10UU	
L	L	

Modifiers

Table 3076: Properties of each modifier.

Id	Name	SBO
Da10UU	Da10UU	
L	L	

Product

Table 3077: Properties of each product.

Id	Name	SBO
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1024} = k_b \cdot [\text{Da10UU}] \cdot [\text{L}]$$

(2073)

7.1025 Reaction r1025

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da10CU binds ligand

Reaction equation



Reactants

Table 3078: Properties of each reactant.

Id	Name	SBO
Da10CU	Da10CU	
L	L	

Modifiers

Table 3079: Properties of each modifier.

Id	Name	SBO
Da10CU	Da10CU	
L	L	

Product

Table 3080: Properties of each product.

Id	Name	SBO
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1025} = k_b \cdot [\text{Da10CU}] \cdot [\text{L}]$$

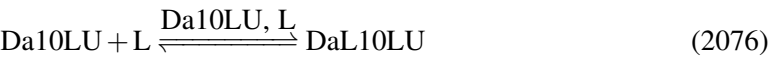
(2075)

7.1026 Reaction r1026

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da10LU binds ligand

Reaction equation



Reactants

Table 3081: Properties of each reactant.

Id	Name	SBO
Da10LU	Da10LU	
L	L	

Modifiers

Table 3082: Properties of each modifier.

Id	Name	SBO
Da10LU	Da10LU	
L	L	

Product

Table 3083: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1026} = k_b \cdot [\text{Da10LU}] \cdot [\text{L}] \tag{2077}$$

7.1027 Reaction r1027

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da01UU binds ligand

Reaction equation



Reactants

Table 3084: Properties of each reactant.

Id	Name	SBO
Da01UU	Da01UU	
L	L	

Modifiers

Table 3085: Properties of each modifier.

Id	Name	SBO
Da01UU	Da01UU	
L	L	

Product

Table 3086: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1027} = k_b \cdot [\text{Da01UU}] \cdot [\text{L}]$$

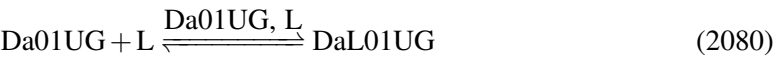
(2079)

7.1028 Reaction r1028

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da01UG binds ligand

Reaction equation



Reactants

Table 3087: Properties of each reactant.

Id	Name	SBO
Da01UG	Da01UG	
L	L	

Modifiers

Table 3088: Properties of each modifier.

Id	Name	SBO
Da01UG	Da01UG	
L	L	

Product

Table 3089: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1028} = k_b \cdot [\text{Da01UG}] \cdot [\text{L}] \tag{2081}$$

7.1029 Reaction r1029

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da01UL binds ligand

Reaction equation



Reactants

Table 3090: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	
L	L	

Modifiers

Table 3091: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	
L	L	

Product

Table 3092: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1029} = k_b \cdot [\text{Da01UL}] \cdot [\text{L}] \tag{2083}$$

7.1030 Reaction r1030

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11UU binds ligand

Reaction equation



Reactants

Table 3093: Properties of each reactant.

Id	Name	SBO
Da11UU	Da11UU	
L	L	

Modifiers

Table 3094: Properties of each modifier.

Id	Name	SBO
Da11UU	Da11UU	
L	L	

Product

Table 3095: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1030} = k_b \cdot [\text{Da11UU}] \cdot [\text{L}]$$

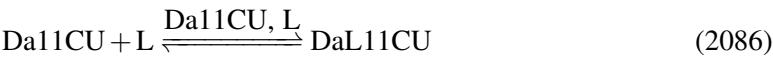
(2085)

7.1031 Reaction r1031

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11CU binds ligand

Reaction equation



Reactants

Table 3096: Properties of each reactant.

Id	Name	SBO
Da11CU	Da11CU	
L	L	

Modifiers

Table 3097: Properties of each modifier.

Id	Name	SBO
Da11CU	Da11CU	
L	L	

Product

Table 3098: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1031} = k_b \cdot [\text{Da11CU}] \cdot [\text{L}]$$

(2087)

7.1032 Reaction r1032

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11LU binds ligand

Reaction equation



Reactants

Table 3099: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	
L	L	

Modifiers

Table 3100: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	
L	L	

Product

Table 3101: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1032} = k_b \cdot [\text{Da11LU}] \cdot [\text{L}] \tag{2089}$$

7.1033 Reaction r1033

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11UG binds ligand

Reaction equation



Reactants

Table 3102: Properties of each reactant.

Id	Name	SBO
Da11UG	Da11UG	
L	L	

Modifiers

Table 3103: Properties of each modifier.

Id	Name	SBO
Da11UG	Da11UG	
L	L	

Product

Table 3104: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1033} = k_b \cdot [\text{Da11UG}] \cdot [\text{L}] \tag{2091}$$

7.1034 Reaction r1034

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11UL binds ligand

Reaction equation



Reactants

Table 3105: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	
L	L	

Modifiers

Table 3106: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	
L	L	

Product

Table 3107: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

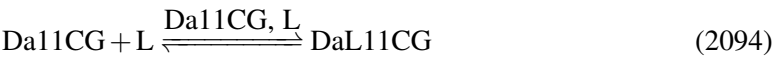
$$v_{1034} = k_b \cdot [\text{Da11UL}] \cdot [\text{L}] \tag{2093}$$

7.1035 Reaction r1035

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11CG binds ligand

Reaction equation



Reactants

Table 3108: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	
L	L	

Modifiers

Table 3109: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	
L	L	

Product

Table 3110: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1035} = k_b \cdot [\text{Da11CG}] \cdot [\text{L}]$$

(2095)

7.1036 Reaction r1036

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11CC binds ligand

Reaction equation



Reactants

Table 3111: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	
L	L	

Modifiers

Table 3112: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	
L	L	

Product

Table 3113: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1036} = k_b \cdot [\text{Da11CC}] \cdot [\text{L}]$$

(2097)

7.1037 Reaction r1037

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da11LG binds ligand

Reaction equation



Reactants

Table 3114: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	
L	L	

Modifiers

Table 3115: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	
L	L	

Product

Table 3116: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1037} = k_b \cdot [\text{Da11LG}] \cdot [\text{L}] \tag{2099}$$

7.1038 Reaction r1038

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da02UU binds ligand

Reaction equation



Reactants

Table 3117: Properties of each reactant.

Id	Name	SBO
Da02UU	Da02UU	
L	L	

Modifiers

Table 3118: Properties of each modifier.

Id	Name	SBO
Da02UU	Da02UU	
L	L	

Product

Table 3119: Properties of each product.

Id	Name	SBO
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1038} = k_b \cdot [\text{Da02UU}] \cdot [\text{L}]$$

(2101)

7.1039 Reaction r1039

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da02UG binds ligand

Reaction equation



Reactants

Table 3120: Properties of each reactant.

Id	Name	SBO
Da02UG	Da02UG	
L	L	

Modifiers

Table 3121: Properties of each modifier.

Id	Name	SBO
Da02UG	Da02UG	
L	L	

Product

Table 3122: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1039} = k_b \cdot [\text{Da02UG}] \cdot [\text{L}]$$

(2103)

7.1040 Reaction r1040

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da02UL binds ligand

Reaction equation



Reactants

Table 3123: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	
L	L	

Modifiers

Table 3124: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	
L	L	

Product

Table 3125: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1040} = k_b \cdot [\text{Da02UL}] \cdot [\text{L}] \tag{2105}$$

7.1041 Reaction r1041

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12UU binds ligand

Reaction equation



Reactants

Table 3126: Properties of each reactant.

Id	Name	SBO
Da12UU	Da12UU	
L	L	

Modifiers

Table 3127: Properties of each modifier.

Id	Name	SBO
Da12UU	Da12UU	
L	L	

Product

Table 3128: Properties of each product.

Id	Name	SBO
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1041} = k_b \cdot [\text{Da12UU}] \cdot [\text{L}]$$

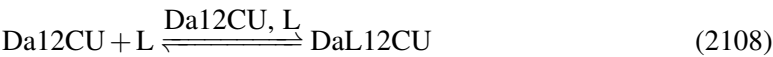
(2107)

7.1042 Reaction r1042

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12CU binds ligand

Reaction equation



Reactants

Table 3129: Properties of each reactant.

Id	Name	SBO
Da12CU	Da12CU	
L	L	

Modifiers

Table 3130: Properties of each modifier.

Id	Name	SBO
Da12CU	Da12CU	
L	L	

Product

Table 3131: Properties of each product.

Id	Name	SBO
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1042} = k_b \cdot [\text{Da12CU}] \cdot [\text{L}]$$

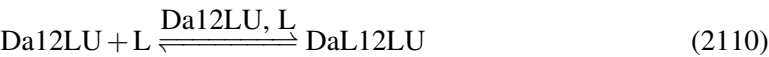
(2109)

7.1043 Reaction r1043

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12LU binds ligand

Reaction equation



Reactants

Table 3132: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	
L	L	

Modifiers

Table 3133: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	
L	L	

Product

Table 3134: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1043} = k_b \cdot [\text{Da12LU}] \cdot [\text{L}]$$

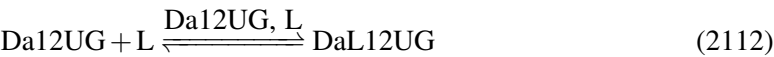
(2111)

7.1044 Reaction r1044

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12UG binds ligand

Reaction equation



Reactants

Table 3135: Properties of each reactant.

Id	Name	SBO
Da12UG	Da12UG	
L	L	

Modifiers

Table 3136: Properties of each modifier.

Id	Name	SBO
Da12UG	Da12UG	
L	L	

Product

Table 3137: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1044} = k_b \cdot [\text{Da12UG}] \cdot [\text{L}] \tag{2113}$$

7.1045 Reaction r1045

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12UL binds ligand

Reaction equation



Reactants

Table 3138: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	
L	L	

Modifiers

Table 3139: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	
L	L	

Product

Table 3140: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1045} = k_b \cdot [\text{Da12UL}] \cdot [\text{L}]$$

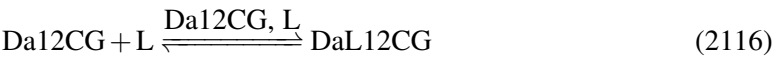
(2115)

7.1046 Reaction r1046

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12CG binds ligand

Reaction equation



Reactants

Table 3141: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	
L	L	

Modifiers

Table 3142: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	
L	L	

Product

Table 3143: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1046} = k_b \cdot [\text{Da12CG}] \cdot [\text{L}]$$

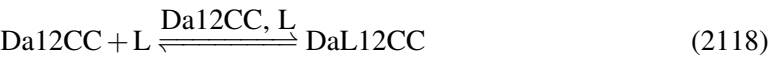
(2117)

7.1047 Reaction r1047

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12CC binds ligand

Reaction equation



Reactants

Table 3144: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	
L	L	

Modifiers

Table 3145: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	
L	L	

Product

Table 3146: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1047} = k_b \cdot [\text{Da12CC}] \cdot [\text{L}]$$

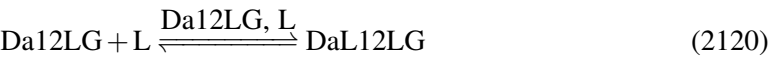
(2119)

7.1048 Reaction r1048

This is a reversible reaction of two reactants forming one product influenced by two modifiers.

Name Da12LG binds ligand

Reaction equation



Reactants

Table 3147: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	
L	L	

Modifiers

Table 3148: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	
L	L	

Product

Table 3149: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1048} = k_b \cdot [\text{Da12LG}] \cdot [\text{L}]$$

(2121)

7.1049 Reaction r1049

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL00UU partner binds ligand

Reaction equation



Reactant

Table 3150: Properties of each reactant.

Id	Name	SBO
DiL00UU	DiL00UU	

Modifiers

Table 3151: Properties of each modifier.

Id	Name	SBO
L	L	
DiL00UU	DiL00UU	
L	L	

Product

Table 3152: Properties of each product.

Id	Name	SBO
DaL00UU	DaL00UU	

Kinetic Law

Derived unit contains undeclared units

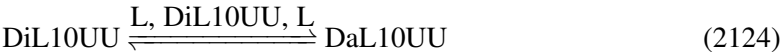
$$v_{1049} = k_b \cdot [\text{DiL00UU}] \cdot [\text{L}] \tag{2123}$$

7.1050 Reaction r1050

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL10UU partner binds ligand

Reaction equation



Reactant

Table 3153: Properties of each reactant.

Id	Name	SBO
DiL10UU	DiL10UU	

Modifiers

Table 3154: Properties of each modifier.

Id	Name	SBO
L	L	
DiL10UU	DiL10UU	
L	L	

Product

Table 3155: Properties of each product.

Id	Name	SBO
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1050} = k_b \cdot [\text{DiL10UU}] \cdot [\text{L}]$$

(2125)

7.1051 Reaction r1051

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL10CU partner binds ligand

Reaction equation



Reactant

Table 3156: Properties of each reactant.

Id	Name	SBO
DiL10CU	DiL10CU	

Modifiers

Table 3157: Properties of each modifier.

Id	Name	SBO
L	L	
DiL10CU	DiL10CU	
L	L	

Product

Table 3158: Properties of each product.

Id	Name	SBO
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1051} = k_b \cdot [\text{DiL10CU}] \cdot [\text{L}]$$

(2127)

7.1052 Reaction r1052

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL10LU partner binds ligand

Reaction equation



Reactant

Table 3159: Properties of each reactant.

Id	Name	SBO
DiL10LU	DiL10LU	

Modifiers

Table 3160: Properties of each modifier.

Id	Name	SBO
L	L	
DiL10LU	DiL10LU	
L	L	

Product

Table 3161: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1052} = k_b \cdot [\text{DiL10LU}] \cdot [\text{L}]$$

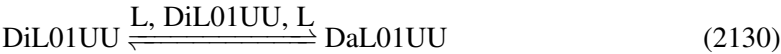
(2129)

7.1053 Reaction r1053

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL01UU partner binds ligand

Reaction equation



Reactant

Table 3162: Properties of each reactant.

Id	Name	SBO
DiL01UU	DiL01UU	

Modifiers

Table 3163: Properties of each modifier.

Id	Name	SBO
L	L	
DiL01UU	DiL01UU	
L	L	

Product

Table 3164: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1053} = k_b \cdot [\text{DiL01UU}] \cdot [\text{L}]$$

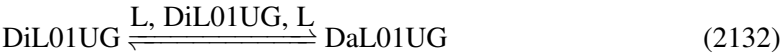
(2131)

7.1054 Reaction r1054

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL01UG partner binds ligand

Reaction equation



Reactant

Table 3165: Properties of each reactant.

Id	Name	SBO
DiL01UG	DiL01UG	

Modifiers

Table 3166: Properties of each modifier.

Id	Name	SBO
L	L	
DiL01UG	DiL01UG	
L	L	

Product

Table 3167: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

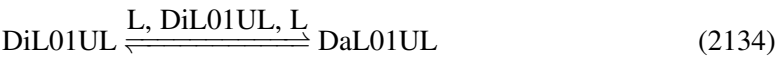
$$v_{1054} = k_b \cdot [\text{DiL01UG}] \cdot [\text{L}] \tag{2133}$$

7.1055 Reaction r1055

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL01UL partner binds ligand

Reaction equation



Reactant

Table 3168: Properties of each reactant.

Id	Name	SBO
DiL01UL	DiL01UL	

Modifiers

Table 3169: Properties of each modifier.

Id	Name	SBO
L	L	
DiL01UL	DiL01UL	
L	L	

Product

Table 3170: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1055} = k_b \cdot [\text{DiL01UL}] \cdot [\text{L}]$$

(2135)

7.1056 Reaction r1056

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11UU partner binds ligand

Reaction equation



Reactant

Table 3171: Properties of each reactant.

Id	Name	SBO
DiL11UU	DiL11UU	

Modifiers

Table 3172: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11UU	DiL11UU	
L	L	

Product

Table 3173: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1056} = k_b \cdot [\text{DiL11UU}] \cdot [\text{L}] \tag{2137}$$

7.1057 Reaction r1057

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11CU partner binds ligand

Reaction equation



Reactant

Table 3174: Properties of each reactant.

Id	Name	SBO
DiL11CU	DiL11CU	

Modifiers

Table 3175: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11CU	DiL11CU	
L	L	

Product

Table 3176: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1057} = k_b \cdot [\text{DiL11CU}] \cdot [\text{L}]$$

(2139)

7.1058 Reaction r1058

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11LU partner binds ligand

Reaction equation



Reactant

Table 3177: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifiers

Table 3178: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11LU	DiL11LU	
L	L	

Product

Table 3179: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1058} = k_b \cdot [\text{DiL11LU}] \cdot [\text{L}]$$

(2141)

7.1059 Reaction r1059

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11UG partner binds ligand

Reaction equation



Reactant

Table 3180: Properties of each reactant.

Id	Name	SBO
DiL11UG	DiL11UG	

Modifiers

Table 3181: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11UG	DiL11UG	
L	L	

Product

Table 3182: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1059} = k_b \cdot [\text{DiL11UG}] \cdot [\text{L}] \tag{2143}$$

7.1060 Reaction r1060

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11UL partner binds ligand

Reaction equation



Reactant

Table 3183: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifiers

Table 3184: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11UL	DiL11UL	
L	L	

Product

Table 3185: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1060} = k_b \cdot [\text{DiL11UL}] \cdot [\text{L}] \tag{2145}$$

7.1061 Reaction r1061

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11CG partner binds ligand

Reaction equation



Reactant

Table 3186: Properties of each reactant.

Id	Name	SBO
DiL11CG	DiL11CG	

Modifiers

Table 3187: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11CG	DiL11CG	
L	L	

Product

Table 3188: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1061} = k_b \cdot [\text{DiL11CG}] \cdot [\text{L}]$$

(2147)

7.1062 Reaction r1062

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11CC partner binds ligand

Reaction equation



Reactant

Table 3189: Properties of each reactant.

Id	Name	SBO
DiL11CC	DiL11CC	

Modifiers

Table 3190: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11CC	DiL11CC	
L	L	

Product

Table 3191: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1062} = k_b \cdot [\text{DiL11CC}] \cdot [\text{L}] \tag{2149}$$

7.1063 Reaction r1063

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL11LG partner binds ligand

Reaction equation



Reactant

Table 3192: Properties of each reactant.

Id	Name	SBO
DiL11LG	DiL11LG	

Modifiers

Table 3193: Properties of each modifier.

Id	Name	SBO
L	L	
DiL11LG	DiL11LG	
L	L	

Product

Table 3194: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1063} = k_b \cdot [\text{DiL11LG}] \cdot [\text{L}]$$

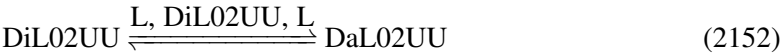
(2151)

7.1064 Reaction r1064

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL02UU partner binds ligand

Reaction equation



Reactant

Table 3195: Properties of each reactant.

Id	Name	SBO
DiL02UU	DiL02UU	

Modifiers

Table 3196: Properties of each modifier.

Id	Name	SBO
L	L	
DiL02UU	DiL02UU	
L	L	

Product

Table 3197: Properties of each product.

Id	Name	SBO
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

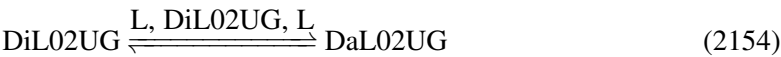
$$v_{1064} = k_b \cdot [\text{DiL02UU}] \cdot [\text{L}] \tag{2153}$$

7.1065 Reaction r1065

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL02UG partner binds ligand

Reaction equation



Reactant

Table 3198: Properties of each reactant.

Id	Name	SBO
DiL02UG	DiL02UG	

Modifiers

Table 3199: Properties of each modifier.

Id	Name	SBO
L	L	
DiL02UG	DiL02UG	
L	L	

Product

Table 3200: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

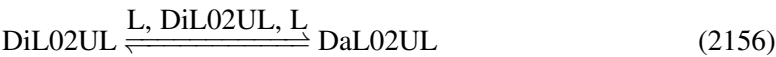
$$v_{1065} = k_b \cdot [\text{DiL02UG}] \cdot [\text{L}] \tag{2155}$$

7.1066 Reaction r1066

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL02UL partner binds ligand

Reaction equation



Reactant

Table 3201: Properties of each reactant.

Id	Name	SBO
DiL02UL	DiL02UL	

Modifiers

Table 3202: Properties of each modifier.

Id	Name	SBO
L	L	
DiL02UL	DiL02UL	
L	L	

Product

Table 3203: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1066} = k_b \cdot [\text{DiL02UL}] \cdot [\text{L}]$$

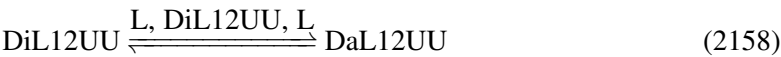
(2157)

7.1067 Reaction r1067

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12UU partner binds ligand

Reaction equation



Reactant

Table 3204: Properties of each reactant.

Id	Name	SBO
DiL12UU	DiL12UU	

Modifiers

Table 3205: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12UU	DiL12UU	
L	L	

Product

Table 3206: Properties of each product.

Id	Name	SBO
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

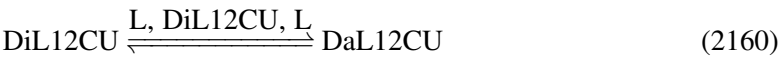
$$v_{1067} = k_b \cdot [\text{DiL12UU}] \cdot [\text{L}] \tag{2159}$$

7.1068 Reaction r1068

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12CU partner binds ligand

Reaction equation



Reactant

Table 3207: Properties of each reactant.

Id	Name	SBO
DiL12CU	DiL12CU	

Modifiers

Table 3208: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12CU	DiL12CU	
L	L	

Product

Table 3209: Properties of each product.

Id	Name	SBO
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

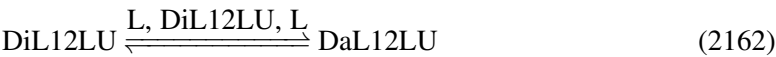
$$v_{1068} = k_b \cdot [\text{DiL12CU}] \cdot [\text{L}] \tag{2161}$$

7.1069 Reaction r1069

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12LU partner binds ligand

Reaction equation



Reactant

Table 3210: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifiers

Table 3211: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12LU	DiL12LU	
L	L	

Product

Table 3212: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1069} = k_b \cdot [\text{DiL12LU}] \cdot [\text{L}]$$

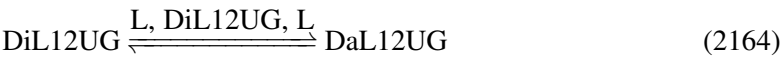
(2163)

7.1070 Reaction r1070

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12UG partner binds ligand

Reaction equation



Reactant

Table 3213: Properties of each reactant.

Id	Name	SBO
DiL12UG	DiL12UG	

Modifiers

Table 3214: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12UG	DiL12UG	
L	L	

Product

Table 3215: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

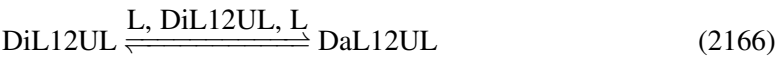
$$v_{1070} = k_b \cdot [\text{DiL12UG}] \cdot [\text{L}] \tag{2165}$$

7.1071 Reaction r1071

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12UL partner binds ligand

Reaction equation



Reactant

Table 3216: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifiers

Table 3217: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12UL	DiL12UL	
L	L	

Product

Table 3218: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1071} = k_b \cdot [\text{DiL12UL}] \cdot [\text{L}]$$

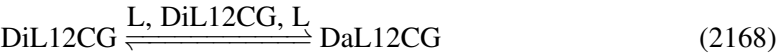
(2167)

7.1072 Reaction r1072

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12CG partner binds ligand

Reaction equation



Reactant

Table 3219: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifiers

Table 3220: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12CG	DiL12CG	
L	L	

Product

Table 3221: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

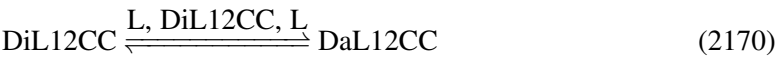
$$v_{1072} = k_b \cdot [\text{DiL12CG}] \cdot [\text{L}] \tag{2169}$$

7.1073 Reaction r1073

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12CC partner binds ligand

Reaction equation



Reactant

Table 3222: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifiers

Table 3223: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12CC	DiL12CC	
L	L	

Product

Table 3224: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1073} = k_b \cdot [\text{DiL12CC}] \cdot [\text{L}]$$

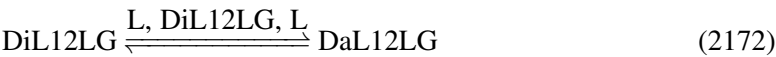
(2171)

7.1074 Reaction r1074

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name DiL12LG partner binds ligand

Reaction equation



Reactant

Table 3225: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifiers

Table 3226: Properties of each modifier.

Id	Name	SBO
L	L	
DiL12LG	DiL12LG	
L	L	

Product

Table 3227: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1074} = k_b \cdot [\text{DiL12LG}] \cdot [\text{L}]$$

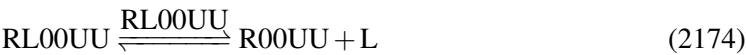
(2173)

7.1075 Reaction r1075

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL00UU dissociates ligand

Reaction equation



Reactant

Table 3228: Properties of each reactant.

Id	Name	SBO
RL00UU	RL00UU	

Modifier

Table 3229: Properties of each modifier.

Id	Name	SBO
RL00UU	RL00UU	

Products

Table 3230: Properties of each product.

Id	Name	SBO
R00UU	R00UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1075} = k_u \cdot [\text{RL00UU}] \tag{2175}$$

7.1076 Reaction r1076

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL10UU dissociates ligand

Reaction equation



Reactant

Table 3231: Properties of each reactant.

Id	Name	SBO
RL10UU	RL10UU	

Modifier

Table 3232: Properties of each modifier.

Id	Name	SBO
RL10UU	RL10UU	

Products

Table 3233: Properties of each product.

Id	Name	SBO
R10UU	R10UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1076} = k_u \cdot [\text{RL10UU}]$$

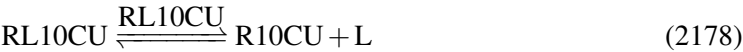
(2177)

7.1077 Reaction r1077

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL10CU dissociates ligand

Reaction equation



Reactant

Table 3234: Properties of each reactant.

Id	Name	SBO
RL10CU	RL10CU	

Modifier

Table 3235: Properties of each modifier.

Id	Name	SBO
RL10CU	RL10CU	

Products

Table 3236: Properties of each product.

Id	Name	SBO
R10CU	R10CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1077} = k_u \cdot [\text{RL10CU}]$$

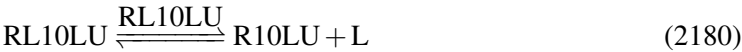
(2179)

7.1078 Reaction r1078

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL10LU dissociates ligand

Reaction equation



Reactant

Table 3237: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifier

Table 3238: Properties of each modifier.

Id	Name	SBO
RL10LU	RL10LU	

Products

Table 3239: Properties of each product.

Id	Name	SBO
R10LU	R10LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1078} = k_u \cdot [\text{RL10LU}]$$

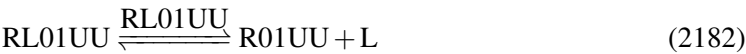
(2181)

7.1079 Reaction r1079

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL01UU dissociates ligand

Reaction equation



Reactant

Table 3240: Properties of each reactant.

Id	Name	SBO
RL01UU	RL01UU	

Modifier

Table 3241: Properties of each modifier.

Id	Name	SBO
RL01UU	RL01UU	

Products

Table 3242: Properties of each product.

Id	Name	SBO
R01UU	R01UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

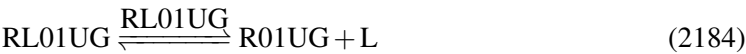
$$v_{1079} = k_u \cdot [\text{RL01UU}] \tag{2183}$$

7.1080 Reaction r1080

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL01UG dissociates ligand

Reaction equation



Reactant

Table 3243: Properties of each reactant.

Id	Name	SBO
RL01UG	RL01UG	

Modifier

Table 3244: Properties of each modifier.

Id	Name	SBO
RL01UG	RL01UG	

Products

Table 3245: Properties of each product.

Id	Name	SBO
R01UG	R01UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1080} = k_u \cdot [\text{RL01UG}] \tag{2185}$$

7.1081 Reaction r1081

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL01UL dissociates ligand

Reaction equation



Reactant

Table 3246: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifier

Table 3247: Properties of each modifier.

Id	Name	SBO
RL01UL	RL01UL	

Products

Table 3248: Properties of each product.

Id	Name	SBO
R01UL	R01UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1081} = k_u \cdot [RL01UL]$$

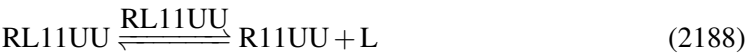
(2187)

7.1082 Reaction r1082

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11UU dissociates ligand

Reaction equation



Reactant

Table 3249: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifier

Table 3250: Properties of each modifier.

Id	Name	SBO
RL11UU	RL11UU	

Products

Table 3251: Properties of each product.

Id	Name	SBO
R11UU	R11UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

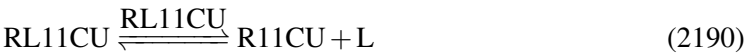
$$v_{1082} = k_u \cdot [\text{RL11UU}] \tag{2189}$$

7.1083 Reaction r1083

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11CU dissociates ligand

Reaction equation



Reactant

Table 3252: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifier

Table 3253: Properties of each modifier.

Id	Name	SBO
RL11CU	RL11CU	

Products

Table 3254: Properties of each product.

Id	Name	SBO
R11CU	R11CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1083} = k_u \cdot [\text{RL11CU}] \tag{2191}$$

7.1084 Reaction r1084

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LU dissociates ligand

Reaction equation



Reactant

Table 3255: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 3256: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Products

Table 3257: Properties of each product.

Id	Name	SBO
R11LU	R11LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

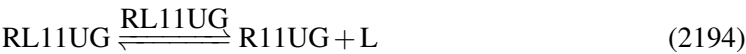
$$v_{1084} = k_u \cdot [\text{RL11LU}] \tag{2193}$$

7.1085 Reaction r1085

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11UG dissociates ligand

Reaction equation



Reactant

Table 3258: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifier

Table 3259: Properties of each modifier.

Id	Name	SBO
RL11UG	RL11UG	

Products

Table 3260: Properties of each product.

Id	Name	SBO
R11UG	R11UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1085} = k_u \cdot [\text{RL11UG}] \tag{2195}$$

7.1086 Reaction r1086

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11UL dissociates ligand

Reaction equation



Reactant

Table 3261: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 3262: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Products

Table 3263: Properties of each product.

Id	Name	SBO
R11UL	R11UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1086} = k_u \cdot [\text{RL11UL}]$$

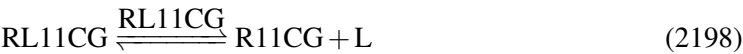
(2197)

7.1087 Reaction r1087

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11CG dissociates ligand

Reaction equation



Reactant

Table 3264: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifier

Table 3265: Properties of each modifier.

Id	Name	SBO
RL11CG	RL11CG	

Products

Table 3266: Properties of each product.

Id	Name	SBO
R11CG	R11CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1087} = k_u \cdot [RL11CG]$$

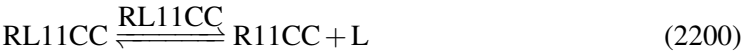
(2199)

7.1088 Reaction r1088

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11CC dissociates ligand

Reaction equation



Reactant

Table 3267: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifier

Table 3268: Properties of each modifier.

Id	Name	SBO
RL11CC	RL11CC	

Products

Table 3269: Properties of each product.

Id	Name	SBO
R11CC	R11CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1088} = k_u \cdot [RL11CC]$$

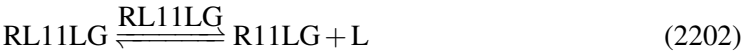
(2201)

7.1089 Reaction r1089

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL11LG dissociates ligand

Reaction equation



Reactant

Table 3270: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifier

Table 3271: Properties of each modifier.

Id	Name	SBO
RL11LG	RL11LG	

Products

Table 3272: Properties of each product.

Id	Name	SBO
R11LG	R11LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1089} = k_u \cdot [RL11LG]$$

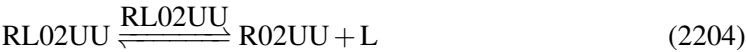
(2203)

7.1090 Reaction r1090

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL02UU dissociates ligand

Reaction equation



Reactant

Table 3273: Properties of each reactant.

Id	Name	SBO
RL02UU	RL02UU	

Modifier

Table 3274: Properties of each modifier.

Id	Name	SBO
RL02UU	RL02UU	

Products

Table 3275: Properties of each product.

Id	Name	SBO
R02UU	R02UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

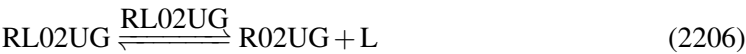
$$v_{1090} = k_u \cdot [\text{RL02UU}] \tag{2205}$$

7.1091 Reaction r1091

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL02UG dissociates ligand

Reaction equation



Reactant

Table 3276: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifier

Table 3277: Properties of each modifier.

Id	Name	SBO
RL02UG	RL02UG	

Products

Table 3278: Properties of each product.

Id	Name	SBO
R02UG	R02UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

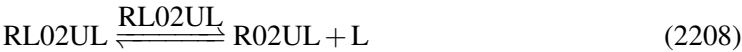
$$v_{1091} = k_u \cdot [\text{RL02UG}] \tag{2207}$$

7.1092 Reaction r1092

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL02UL dissociates ligand

Reaction equation



Reactant

Table 3279: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifier

Table 3280: Properties of each modifier.

Id	Name	SBO
RL02UL	RL02UL	

Products

Table 3281: Properties of each product.

Id	Name	SBO
R02UL	R02UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

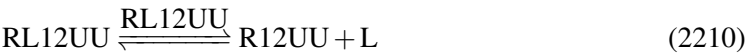
$$v_{1092} = k_u \cdot [RL02UL] \tag{2209}$$

7.1093 Reaction r1093

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12UU dissociates ligand

Reaction equation



Reactant

Table 3282: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifier

Table 3283: Properties of each modifier.

Id	Name	SBO
RL12UU	RL12UU	

Products

Table 3284: Properties of each product.

Id	Name	SBO
R12UU	R12UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

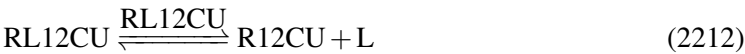
$$v_{1093} = k_u \cdot [\text{RL12UU}] \tag{2211}$$

7.1094 Reaction r1094

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12CU dissociates ligand

Reaction equation



Reactant

Table 3285: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifier

Table 3286: Properties of each modifier.

Id	Name	SBO
RL12CU	RL12CU	

Products

Table 3287: Properties of each product.

Id	Name	SBO
R12CU	R12CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

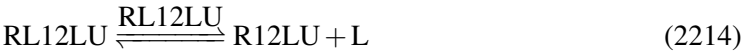
$$v_{1094} = k_u \cdot [\text{RL12CU}] \tag{2213}$$

7.1095 Reaction r1095

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LU dissociates ligand

Reaction equation



Reactant

Table 3288: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 3289: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Products

Table 3290: Properties of each product.

Id	Name	SBO
R12LU	R12LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1095} = k_u \cdot [\text{RL12LU}]$$

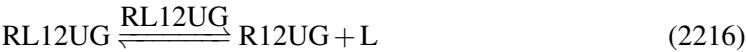
(2215)

7.1096 Reaction r1096

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12UG dissociates ligand

Reaction equation



Reactant

Table 3291: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifier

Table 3292: Properties of each modifier.

Id	Name	SBO
RL12UG	RL12UG	

Products

Table 3293: Properties of each product.

Id	Name	SBO
R12UG	R12UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1096} = k_u \cdot [RL12UG]$$

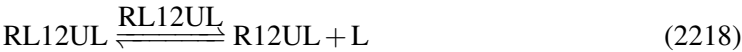
(2217)

7.1097 Reaction r1097

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12UL dissociates ligand

Reaction equation



Reactant

Table 3294: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 3295: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Products

Table 3296: Properties of each product.

Id	Name	SBO
R12UL	R12UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1097} = k_u \cdot [\text{RL12UL}]$$

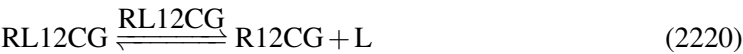
(2219)

7.1098 Reaction r1098

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12CG dissociates ligand

Reaction equation



Reactant

Table 3297: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 3298: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Products

Table 3299: Properties of each product.

Id	Name	SBO
R12CG	R12CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1098} = k_u \cdot [\text{RL12CG}] \tag{2221}$$

7.1099 Reaction r1099

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12CC dissociates ligand

Reaction equation



Reactant

Table 3300: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 3301: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Products

Table 3302: Properties of each product.

Id	Name	SBO
R12CC	R12CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1099} = k_u \cdot [\text{RL12CC}] \tag{2223}$$

7.1100 Reaction r1100

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RL12LG dissociates ligand

Reaction equation



Reactant

Table 3303: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 3304: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Products

Table 3305: Properties of each product.

Id	Name	SBO
R12LG	R12LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1100} = k_u \cdot [RL12LG]$$

(2225)

7.1101 Reaction r1101

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL00UU dissociates ligand

Reaction equation



Reactant

Table 3306: Properties of each reactant.

Id	Name	SBO
RcL00UU	RcL00UU	

Modifier

Table 3307: Properties of each modifier.

Id	Name	SBO
RcL00UU	RcL00UU	

Products

Table 3308: Properties of each product.

Id	Name	SBO
Rc00UU	Rc00UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1101} = k_{1u} \cdot [\text{RcL00UU}] \tag{2227}$$

7.1102 Reaction r1102

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL10UU dissociates ligand

Reaction equation



Reactant

Table 3309: Properties of each reactant.

Id	Name	SBO
RcL10UU	RcL10UU	

Modifier

Table 3310: Properties of each modifier.

Id	Name	SBO
RcL10UU	RcL10UU	

Products

Table 3311: Properties of each product.

Id	Name	SBO
Rc10UU	Rc10UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1102} = k_{1u} \cdot [RcL10UU]$$

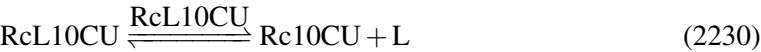
(2229)

7.1103 Reaction r1103

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL10CU dissociates ligand

Reaction equation



Reactant

Table 3312: Properties of each reactant.

Id	Name	SBO
RcL10CU	RcL10CU	

Modifier

Table 3313: Properties of each modifier.

Id	Name	SBO
RcL10CU	RcL10CU	

Products

Table 3314: Properties of each product.

Id	Name	SBO
Rc10CU	Rc10CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1103} = k_{1u} \cdot [RcL10CU]$$

(2231)

7.1104 Reaction r1104

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL10LU dissociates ligand

Reaction equation



Reactant

Table 3315: Properties of each reactant.

Id	Name	SBO
RcL10LU	RcL10LU	

Modifier

Table 3316: Properties of each modifier.

Id	Name	SBO
RcL10LU	RcL10LU	

Products

Table 3317: Properties of each product.

Id	Name	SBO
Rc10LU	Rc10LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1104} = k_{1u} \cdot [\text{RcL10LU}] \tag{2233}$$

7.1105 Reaction r1105

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL01UU dissociates ligand

Reaction equation



Reactant

Table 3318: Properties of each reactant.

Id	Name	SBO
RcL01UU	RcL01UU	

Modifier

Table 3319: Properties of each modifier.

Id	Name	SBO
RcL01UU	RcL01UU	

Products

Table 3320: Properties of each product.

Id	Name	SBO
Rc01UU	Rc01UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1105} = k_{1u} \cdot [\text{RcL01UU}]$$

(2235)

7.1106 Reaction r1106

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL01UG dissociates ligand

Reaction equation



Reactant

Table 3321: Properties of each reactant.

Id	Name	SBO
RcL01UG	RcL01UG	

Modifier

Table 3322: Properties of each modifier.

Id	Name	SBO
RcL01UG	RcL01UG	

Products

Table 3323: Properties of each product.

Id	Name	SBO
Rc01UG	Rc01UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

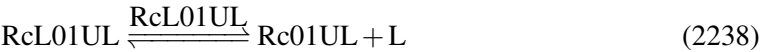
$$v_{1106} = k_{1u} \cdot [\text{RcL01UG}] \tag{2237}$$

7.1107 Reaction r1107

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL01UL dissociates ligand

Reaction equation



Reactant

Table 3324: Properties of each reactant.

Id	Name	SBO
RcL01UL	RcL01UL	

Modifier

Table 3325: Properties of each modifier.

Id	Name	SBO
RcL01UL	RcL01UL	

Products

Table 3326: Properties of each product.

Id	Name	SBO
Rc01UL	Rc01UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1107} = k_{1u} \cdot [\text{RcL01UL}]$$

(2239)

7.1108 Reaction r1108

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11UU dissociates ligand

Reaction equation



Reactant

Table 3327: Properties of each reactant.

Id	Name	SBO
RcL11UU	RcL11UU	

Modifier

Table 3328: Properties of each modifier.

Id	Name	SBO
RcL11UU	RcL11UU	

Products

Table 3329: Properties of each product.

Id	Name	SBO
Rc11UU	Rc11UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1108} = k_{1u} \cdot [RcL11UU]$$

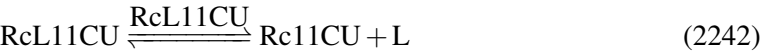
(2241)

7.1109 Reaction r1109

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11CU dissociates ligand

Reaction equation



Reactant

Table 3330: Properties of each reactant.

Id	Name	SBO
RcL11CU	RcL11CU	

Modifier

Table 3331: Properties of each modifier.

Id	Name	SBO
RcL11CU	RcL11CU	

Products

Table 3332: Properties of each product.

Id	Name	SBO
Rc11CU	Rc11CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1109} = k_{1u} \cdot [\text{RcL11CU}]$$

(2243)

7.1110 Reaction r1110

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LU dissociates ligand

Reaction equation



Reactant

Table 3333: Properties of each reactant.

Id	Name	SBO
RcL11LU	RcL11LU	

Modifier

Table 3334: Properties of each modifier.

Id	Name	SBO
RcL11LU	RcL11LU	

Products

Table 3335: Properties of each product.

Id	Name	SBO
Rc11LU	Rc11LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1110} = k_{1u} \cdot [\text{RcL11LU}]$$

(2245)

7.1111 Reaction r1111

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11UG dissociates ligand

Reaction equation



Reactant

Table 3336: Properties of each reactant.

Id	Name	SBO
RcL11UG	RcL11UG	

Modifier

Table 3337: Properties of each modifier.

Id	Name	SBO
RcL11UG	RcL11UG	

Products

Table 3338: Properties of each product.

Id	Name	SBO
Rc11UG	Rc11UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1111} = k_{1u} \cdot [\text{RcL11UG}]$$

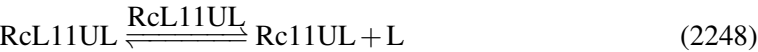
(2247)

7.1112 Reaction r1112

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11UL dissociates ligand

Reaction equation



Reactant

Table 3339: Properties of each reactant.

Id	Name	SBO
RcL11UL	RcL11UL	

Modifier

Table 3340: Properties of each modifier.

Id	Name	SBO
RcL11UL	RcL11UL	

Products

Table 3341: Properties of each product.

Id	Name	SBO
Rc11UL	Rc11UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1112} = k_{1u} \cdot [RcL11UL] \tag{2249}$$

7.1113 Reaction r1113

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11CG dissociates ligand

Reaction equation



Reactant

Table 3342: Properties of each reactant.

Id	Name	SBO
RcL11CG	RcL11CG	

Modifier

Table 3343: Properties of each modifier.

Id	Name	SBO
RcL11CG	RcL11CG	

Products

Table 3344: Properties of each product.

Id	Name	SBO
Rc11CG	Rc11CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1113} = k_{1u} \cdot [RcL11CG]$$

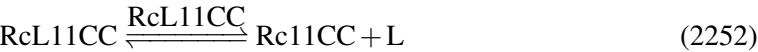
(2251)

7.1114 Reaction r1114

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11CC dissociates ligand

Reaction equation



Reactant

Table 3345: Properties of each reactant.

Id	Name	SBO
RcL11CC	RcL11CC	

Modifier

Table 3346: Properties of each modifier.

Id	Name	SBO
RcL11CC	RcL11CC	

Products

Table 3347: Properties of each product.

Id	Name	SBO
Rc11CC	Rc11CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

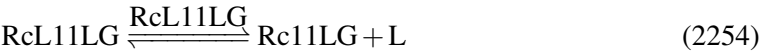
$$v_{1114} = k_{1u} \cdot [\text{RcL11CC}] \tag{2253}$$

7.1115 Reaction r1115

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL11LG dissociates ligand

Reaction equation



Reactant

Table 3348: Properties of each reactant.

Id	Name	SBO
RcL11LG	RcL11LG	

Modifier

Table 3349: Properties of each modifier.

Id	Name	SBO
RcL11LG	RcL11LG	

Products

Table 3350: Properties of each product.

Id	Name	SBO
Rc11LG	Rc11LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1115} = k_{1u} \cdot [\text{RcL11LG}] \tag{2255}$$

7.1116 Reaction r1116

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL02UU dissociates ligand

Reaction equation



Reactant

Table 3351: Properties of each reactant.

Id	Name	SBO
RcL02UU	RcL02UU	

Modifier

Table 3352: Properties of each modifier.

Id	Name	SBO
RcL02UU	RcL02UU	

Products

Table 3353: Properties of each product.

Id	Name	SBO
Rc02UU	Rc02UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1116} = k_{1u} \cdot [\text{RcL02UU}] \tag{2257}$$

7.1117 Reaction r1117

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL02UG dissociates ligand

Reaction equation



Reactant

Table 3354: Properties of each reactant.

Id	Name	SBO
RcL02UG	RcL02UG	

Modifier

Table 3355: Properties of each modifier.

Id	Name	SBO
RcL02UG	RcL02UG	

Products

Table 3356: Properties of each product.

Id	Name	SBO
Rc02UG	Rc02UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1117} = k_{1u} \cdot [\text{RcL02UG}]$$

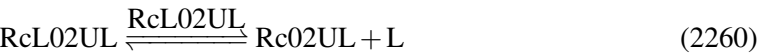
(2259)

7.1118 Reaction r1118

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL02UL dissociates ligand

Reaction equation



Reactant

Table 3357: Properties of each reactant.

Id	Name	SBO
RcL02UL	RcL02UL	

Modifier

Table 3358: Properties of each modifier.

Id	Name	SBO
RcL02UL	RcL02UL	

Products

Table 3359: Properties of each product.

Id	Name	SBO
Rc02UL	Rc02UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1118} = k_{1u} \cdot [\text{RcL02UL}] \tag{2261}$$

7.1119 Reaction r1119

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12UU dissociates ligand

Reaction equation



Reactant

Table 3360: Properties of each reactant.

Id	Name	SBO
RcL12UU	RcL12UU	

Modifier

Table 3361: Properties of each modifier.

Id	Name	SBO
RcL12UU	RcL12UU	

Products

Table 3362: Properties of each product.

Id	Name	SBO
Rc12UU	Rc12UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1119} = k_{1u} \cdot [\text{RcL12UU}]$$

(2263)

7.1120 Reaction r1120

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12CU dissociates ligand

Reaction equation



Reactant

Table 3363: Properties of each reactant.

Id	Name	SBO
RcL12CU	RcL12CU	

Modifier

Table 3364: Properties of each modifier.

Id	Name	SBO
RcL12CU	RcL12CU	

Products

Table 3365: Properties of each product.

Id	Name	SBO
Rc12CU	Rc12CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1120} = k_{1u} \cdot [RcL12CU] \tag{2265}$$

7.1121 Reaction r1121

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LU dissociates ligand

Reaction equation



Reactant

Table 3366: Properties of each reactant.

Id	Name	SBO
RcL12LU	RcL12LU	

Modifier

Table 3367: Properties of each modifier.

Id	Name	SBO
RcL12LU	RcL12LU	

Products

Table 3368: Properties of each product.

Id	Name	SBO
Rc12LU	Rc12LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1121} = k_{1u} \cdot [RcL12LU]$$

(2267)

7.1122 Reaction [r1122](#)

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12UG dissociates ligand

Reaction equation



Reactant

Table 3369: Properties of each reactant.

Id	Name	SBO
RcL12UG	RcL12UG	

Modifier

Table 3370: Properties of each modifier.

Id	Name	SBO
RcL12UG	RcL12UG	

Products

Table 3371: Properties of each product.

Id	Name	SBO
Rc12UG	Rc12UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1122} = k_{1u} \cdot [RcL12UG]$$

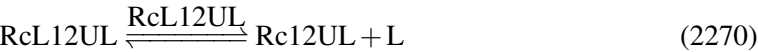
(2269)

7.1123 Reaction r1123

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12UL dissociates ligand

Reaction equation



Reactant

Table 3372: Properties of each reactant.

Id	Name	SBO
RcL12UL	RcL12UL	

Modifier

Table 3373: Properties of each modifier.

Id	Name	SBO
RcL12UL	RcL12UL	

Products

Table 3374: Properties of each product.

Id	Name	SBO
Rc12UL	Rc12UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1123} = k_{1u} \cdot [RcL12UL]$$

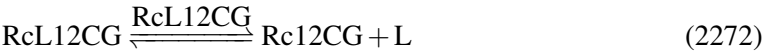
(2271)

7.1124 Reaction r1124

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12CG dissociates ligand

Reaction equation



Reactant

Table 3375: Properties of each reactant.

Id	Name	SBO
RcL12CG	RcL12CG	

Modifier

Table 3376: Properties of each modifier.

Id	Name	SBO
RcL12CG	RcL12CG	

Products

Table 3377: Properties of each product.

Id	Name	SBO
Rc12CG	Rc12CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

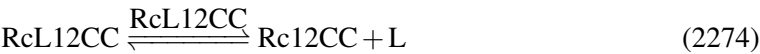
$$v_{1124} = k_{1u} \cdot [RcL12CG] \tag{2273}$$

7.1125 Reaction r1125

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12CC dissociates ligand

Reaction equation



Reactant

Table 3378: Properties of each reactant.

Id	Name	SBO
RcL12CC	RcL12CC	

Modifier

Table 3379: Properties of each modifier.

Id	Name	SBO
RcL12CC	RcL12CC	

Products

Table 3380: Properties of each product.

Id	Name	SBO
Rc12CC	Rc12CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1125} = k_{1u} \cdot [\text{RcL12CC}]$$

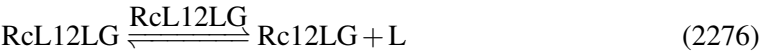
(2275)

7.1126 Reaction r1126

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name RcL12LG dissociates ligand

Reaction equation



Reactant

Table 3381: Properties of each reactant.

Id	Name	SBO
RcL12LG	RcL12LG	

Modifier

Table 3382: Properties of each modifier.

Id	Name	SBO
RcL12LG	RcL12LG	

Products

Table 3383: Properties of each product.

Id	Name	SBO
Rc12LG	Rc12LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1126} = k_{1u} \cdot [RcL12LG] \tag{2277}$$

7.1127 Reaction r1127

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL00UU partner dissociates its ligand

Reaction equation



Reactant

Table 3384: Properties of each reactant.

Id	Name	SBO
DaL00UU	DaL00UU	

Modifier

Table 3385: Properties of each modifier.

Id	Name	SBO
DaL00UU	DaL00UU	

Product

Table 3386: Properties of each product.

Id	Name	SBO
DiL00UU	DiL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1127} = k_u \cdot [\text{DaL00UU}] \tag{2279}$$

7.1128 Reaction r1128

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10UU partner dissociates its ligand

Reaction equation



Reactant

Table 3387: Properties of each reactant.

Id	Name	SBO
DaL10UU	DaL10UU	

Modifier

Table 3388: Properties of each modifier.

Id	Name	SBO
DaL10UU	DaL10UU	

Product

Table 3389: Properties of each product.

Id	Name	SBO
DiL10UU	DiL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1128} = k_u \cdot [\text{DaL10UU}] \quad (2281)$$

7.1129 Reaction r1129

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10CU partner dissociates its ligand

Reaction equation



Reactant

Table 3390: Properties of each reactant.

Id	Name	SBO
DaL10CU	DaL10CU	

Modifier

Table 3391: Properties of each modifier.

Id	Name	SBO
DaL10CU	DaL10CU	

Product

Table 3392: Properties of each product.

Id	Name	SBO
DiL10CU	DiL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1129} = k_u \cdot [\text{DaL10CU}] \tag{2283}$$

7.1130 Reaction r1130

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10LU partner dissociates its ligand

Reaction equation



Reactant

Table 3393: Properties of each reactant.

Id	Name	SBO
DaL10LU	DaL10LU	

Modifier

Table 3394: Properties of each modifier.

Id	Name	SBO
DaL10LU	DaL10LU	

Product

Table 3395: Properties of each product.

Id	Name	SBO
DiL10LU	DiL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1130} = k_u \cdot [\text{DaL10LU}] \quad (2285)$$

7.1131 Reaction r1131

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UU partner dissociates its ligand

Reaction equation



Reactant

Table 3396: Properties of each reactant.

Id	Name	SBO
DaL01UU	DaL01UU	

Modifier

Table 3397: Properties of each modifier.

Id	Name	SBO
DaL01UU	DaL01UU	

Product

Table 3398: Properties of each product.

Id	Name	SBO
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1131} = k_u \cdot [\text{DaL01UU}] \quad (2287)$$

7.1132 Reaction r1132

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UG partner dissociates its ligand

Reaction equation**Reactant**

Table 3399: Properties of each reactant.

Id	Name	SBO
DaL01UG	DaL01UG	

Modifier

Table 3400: Properties of each modifier.

Id	Name	SBO
DaL01UG	DaL01UG	

Product

Table 3401: Properties of each product.

Id	Name	SBO
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1132} = k_u \cdot [\text{DaL01UG}]$$

(2289)

7.1133 Reaction r1133

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UL partner dissociates its ligand

Reaction equation



Reactant

Table 3402: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 3403: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Product

Table 3404: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1133} = k_u \cdot [\text{DaL01UL}]$$

(2291)

7.1134 Reaction r1134

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UU partner dissociates its ligand

Reaction equation



Reactant

Table 3405: Properties of each reactant.

Id	Name	SBO
DaL11UU	DaL11UU	

Modifier

Table 3406: Properties of each modifier.

Id	Name	SBO
DaL11UU	DaL11UU	

Product

Table 3407: Properties of each product.

Id	Name	SBO
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$v_{1134} = k_u \cdot [\text{DaL11UU}]$

(2293)

7.1135 Reaction r1135

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CU partner dissociates its ligand

Reaction equation



Reactant

Table 3408: Properties of each reactant.

Id	Name	SBO
DaL11CU	DaL11CU	

Modifier

Table 3409: Properties of each modifier.

Id	Name	SBO
DaL11CU	DaL11CU	

Product

Table 3410: Properties of each product.

Id	Name	SBO
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1135} = k_u \cdot [\text{DaL11CU}]$$

(2295)

7.1136 Reaction r1136

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LU partner dissociates its ligand

Reaction equation



Reactant

Table 3411: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 3412: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Product

Table 3413: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1136} = k_u \cdot [\text{DaL11LU}]$$

(2297)

7.1137 Reaction r1137

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UG partner dissociates its ligand

Reaction equation



Reactant

Table 3414: Properties of each reactant.

Id	Name	SBO
DaL11UG	DaL11UG	

Modifier

Table 3415: Properties of each modifier.

Id	Name	SBO
DaL11UG	DaL11UG	

Product

Table 3416: Properties of each product.

Id	Name	SBO
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1137} = k_u \cdot [\text{DaL11UG}] \tag{2299}$$

7.1138 Reaction r1138

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UL partner dissociates its ligand

Reaction equation



Reactant

Table 3417: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 3418: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Product

Table 3419: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1138} = k_u \cdot [\text{DaL11UL}] \tag{2301}$$

7.1139 Reaction r1139

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CG partner dissociates its ligand

Reaction equation



Reactant

Table 3420: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 3421: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Product

Table 3422: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1139} = k_u \cdot [\text{DaL11CG}] \tag{2303}$$

7.1140 Reaction r1140

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CC partner dissociates its ligand

Reaction equation



Reactant

Table 3423: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 3424: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Product

Table 3425: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1140} = k_u \cdot [\text{DaL11CC}] \quad (2305)$$

7.1141 Reaction r1141

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LG partner dissociates its ligand

Reaction equation**Reactant**

Table 3426: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 3427: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Product

Table 3428: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1141} = k_u \cdot [\text{DaL11LG}]$$

(2307)

7.1142 Reaction r1142

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UU partner dissociates its ligand

Reaction equation



Reactant

Table 3429: Properties of each reactant.

Id	Name	SBO
DaL02UU	DaL02UU	

Modifier

Table 3430: Properties of each modifier.

Id	Name	SBO
DaL02UU	DaL02UU	

Product

Table 3431: Properties of each product.

Id	Name	SBO
DiL02UU	DiL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1142} = k_u \cdot [\text{DaL02UU}]$$

(2309)

7.1143 Reaction r1143

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UG partner dissociates its ligand

Reaction equation



Reactant

Table 3432: Properties of each reactant.

Id	Name	SBO
DaL02UG	DaL02UG	

Modifier

Table 3433: Properties of each modifier.

Id	Name	SBO
DaL02UG	DaL02UG	

Product

Table 3434: Properties of each product.

Id	Name	SBO
DiL02UG	DiL02UG	

Kinetic Law

Derived unit contains undeclared units

$v_{1143} = k_u \cdot [\text{DaL02UG}]$

(2311)

7.1144 Reaction r1144

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UL partner dissociates its ligand

Reaction equation



Reactant

Table 3435: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 3436: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Product

Table 3437: Properties of each product.

Id	Name	SBO
DiL02UL	DiL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1144} = k_u \cdot [\text{DaL02UL}]$$

(2313)

7.1145 Reaction r1145

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UU partner dissociates its ligand

Reaction equation



Reactant

Table 3438: Properties of each reactant.

Id	Name	SBO
DaL12UU	DaL12UU	

Modifier

Table 3439: Properties of each modifier.

Id	Name	SBO
DaL12UU	DaL12UU	

Product

Table 3440: Properties of each product.

Id	Name	SBO
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1145} = k_u \cdot [\text{DaL12UU}]$$

(2315)

7.1146 Reaction r1146

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CU partner dissociates its ligand

Reaction equation



Reactant

Table 3441: Properties of each reactant.

Id	Name	SBO
DaL12CU	DaL12CU	

Modifier

Table 3442: Properties of each modifier.

Id	Name	SBO
DaL12CU	DaL12CU	

Product

Table 3443: Properties of each product.

Id	Name	SBO
DiL12CU	DiL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1146} = k_u \cdot [\text{DaL12CU}] \tag{2317}$$

7.1147 Reaction r1147

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LU partner dissociates its ligand

Reaction equation



Reactant

Table 3444: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 3445: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Product

Table 3446: Properties of each product.

Id	Name	SBO
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1147} = k_u \cdot [\text{DaL12LU}] \tag{2319}$$

7.1148 Reaction r1148

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UG partner dissociates its ligand

Reaction equation



Reactant

Table 3447: Properties of each reactant.

Id	Name	SBO
DaL12UG	DaL12UG	

Modifier

Table 3448: Properties of each modifier.

Id	Name	SBO
DaL12UG	DaL12UG	

Product

Table 3449: Properties of each product.

Id	Name	SBO
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1148} = k_u \cdot [\text{DaL12UG}] \tag{2321}$$

7.1149 Reaction r1149

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UL partner dissociates its ligand

Reaction equation



Reactant

Table 3450: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 3451: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Product

Table 3452: Properties of each product.

Id	Name	SBO
DiL12UL	DiL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1149} = k_u \cdot [\text{DaL12UL}] \quad (2323)$$

7.1150 Reaction r1150

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CG partner dissociates its ligand

Reaction equation**Reactant**

Table 3453: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 3454: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Product

Table 3455: Properties of each product.

Id	Name	SBO
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1150} = k_u \cdot [\text{DaL12CG}]$$

(2325)

7.1151 Reaction r1151

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CC partner dissociates its ligand

Reaction equation



Reactant

Table 3456: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 3457: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Product

Table 3458: Properties of each product.

Id	Name	SBO
DiL12CC	DiL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1151} = k_u \cdot [\text{DaL12CC}]$$

(2327)

7.1152 Reaction r1152

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LG partner dissociates its ligand

Reaction equation



Reactant

Table 3459: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 3460: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Product

Table 3461: Properties of each product.

Id	Name	SBO
DiL12LG	DiL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1152} = k_u \cdot [\text{DaL12LG}]$$

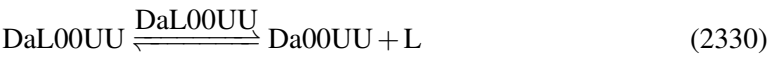
(2329)

7.1153 Reaction r1153

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL00UU dissociates its ligand

Reaction equation



Reactant

Table 3462: Properties of each reactant.

Id	Name	SBO
DaL00UU	DaL00UU	

Modifier

Table 3463: Properties of each modifier.

Id	Name	SBO
DaL00UU	DaL00UU	

Products

Table 3464: Properties of each product.

Id	Name	SBO
Da00UU	Da00UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1153} = k_u \cdot [\text{DaL00UU}]$$

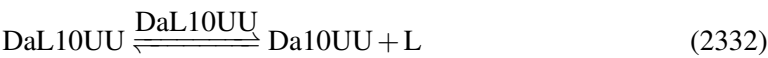
(2331)

7.1154 Reaction r1154

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL10UU dissociates its ligand

Reaction equation



Reactant

Table 3465: Properties of each reactant.

Id	Name	SBO
DaL10UU	DaL10UU	

Modifier

Table 3466: Properties of each modifier.

Id	Name	SBO
DaL10UU	DaL10UU	

Products

Table 3467: Properties of each product.

Id	Name	SBO
Da10UU	Da10UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1154} = k_u \cdot [\text{DaL10UU}] \tag{2333}$$

7.1155 Reaction r1155

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL10CU dissociates its ligand

Reaction equation



Reactant

Table 3468: Properties of each reactant.

Id	Name	SBO
DaL10CU	DaL10CU	

Modifier

Table 3469: Properties of each modifier.

Id	Name	SBO
DaL10CU	DaL10CU	

Products

Table 3470: Properties of each product.

Id	Name	SBO
Da10CU	Da10CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

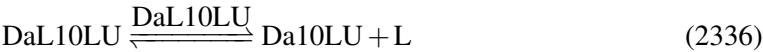
$$v_{1155} = k_u \cdot [\text{DaL10CU}] \tag{2335}$$

7.1156 Reaction r1156

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL10LU dissociates its ligand

Reaction equation



Reactant

Table 3471: Properties of each reactant.

Id	Name	SBO
DaL10LU	DaL10LU	

Modifier

Table 3472: Properties of each modifier.

Id	Name	SBO
DaL10LU	DaL10LU	

Products

Table 3473: Properties of each product.

Id	Name	SBO
Da10LU	Da10LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1156} = k_u \cdot [\text{DaL10LU}] \tag{2337}$$

7.1157 Reaction r1157

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL01UU dissociates its ligand

Reaction equation



Reactant

Table 3474: Properties of each reactant.

Id	Name	SBO
DaL01UU	DaL01UU	

Modifier

Table 3475: Properties of each modifier.

Id	Name	SBO
DaL01UU	DaL01UU	

Products

Table 3476: Properties of each product.

Id	Name	SBO
Da01UU	Da01UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

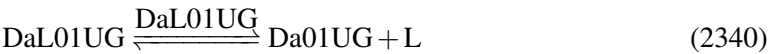
$$v_{1157} = k_u \cdot [\text{DaL01UU}] \tag{2339}$$

7.1158 Reaction r1158

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL01UG dissociates its ligand

Reaction equation



Reactant

Table 3477: Properties of each reactant.

Id	Name	SBO
DaL01UG	DaL01UG	

Modifier

Table 3478: Properties of each modifier.

Id	Name	SBO
DaL01UG	DaL01UG	

Products

Table 3479: Properties of each product.

Id	Name	SBO
Da01UG	Da01UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1158} = k_u \cdot [\text{DaL01UG}]$$

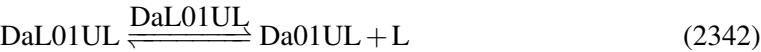
(2341)

7.1159 Reaction r1159

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL01UL dissociates its ligand

Reaction equation



Reactant

Table 3480: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 3481: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Products

Table 3482: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1159} = k_u \cdot [\text{DaL01UL}] \tag{2343}$$

7.1160 Reaction r1160

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11UU dissociates its ligand

Reaction equation



Reactant

Table 3483: Properties of each reactant.

Id	Name	SBO
DaL11UU	DaL11UU	

Modifier

Table 3484: Properties of each modifier.

Id	Name	SBO
DaL11UU	DaL11UU	

Products

Table 3485: Properties of each product.

Id	Name	SBO
Da11UU	Da11UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1160} = k_u \cdot [\text{DaL11UU}]$$

(2345)

7.1161 Reaction r1161

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11CU dissociates its ligand

Reaction equation



Reactant

Table 3486: Properties of each reactant.

Id	Name	SBO
DaL11CU	DaL11CU	

Modifier

Table 3487: Properties of each modifier.

Id	Name	SBO
DaL11CU	DaL11CU	

Products

Table 3488: Properties of each product.

Id	Name	SBO
Da11CU	Da11CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1161} = k_u \cdot [\text{DaL11CU}] \tag{2347}$$

7.1162 Reaction r1162

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LU dissociates its ligand

Reaction equation



Reactant

Table 3489: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 3490: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Products

Table 3491: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1162} = k_u \cdot [\text{DaL11LU}]$$

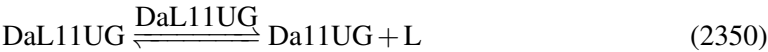
(2349)

7.1163 Reaction r1163

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11UG dissociates its ligand

Reaction equation



Reactant

Table 3492: Properties of each reactant.

Id	Name	SBO
DaL11UG	DaL11UG	

Modifier

Table 3493: Properties of each modifier.

Id	Name	SBO
DaL11UG	DaL11UG	

Products

Table 3494: Properties of each product.

Id	Name	SBO
Da11UG	Da11UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

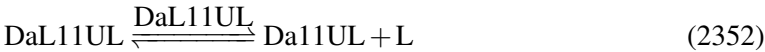
$$v_{1163} = k_u \cdot [\text{DaL11UG}] \tag{2351}$$

7.1164 Reaction r1164

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11UL dissociates its ligand

Reaction equation



Reactant

Table 3495: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 3496: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Products

Table 3497: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1164} = k_u \cdot [\text{DaL11UL}]$$

(2353)

7.1165 Reaction r1165

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11CG dissociates its ligand

Reaction equation



Reactant

Table 3498: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 3499: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Products

Table 3500: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

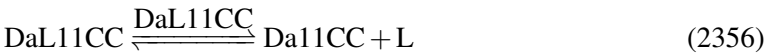
$$v_{1165} = k_u \cdot [\text{DaL11CG}] \tag{2355}$$

7.1166 Reaction r1166

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11CC dissociates its ligand

Reaction equation



Reactant

Table 3501: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 3502: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Products

Table 3503: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1166} = k_u \cdot [\text{DaL11CC}] \tag{2357}$$

7.1167 Reaction r1167

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL11LG dissociates its ligand

Reaction equation



Reactant

Table 3504: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 3505: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Products

Table 3506: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1167} = k_u \cdot [\text{DaL11LG}] \tag{2359}$$

7.1168 Reaction r1168

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL02UU dissociates its ligand

Reaction equation



Reactant

Table 3507: Properties of each reactant.

Id	Name	SBO
DaL02UU	DaL02UU	

Modifier

Table 3508: Properties of each modifier.

Id	Name	SBO
DaL02UU	DaL02UU	

Products

Table 3509: Properties of each product.

Id	Name	SBO
Da02UU	Da02UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

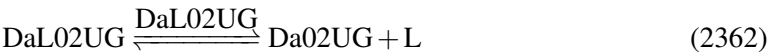
$$v_{1168} = k_u \cdot [\text{DaL02UU}] \tag{2361}$$

7.1169 Reaction r1169

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL02UG dissociates its ligand

Reaction equation



Reactant

Table 3510: Properties of each reactant.

Id	Name	SBO
DaL02UG	DaL02UG	

Modifier

Table 3511: Properties of each modifier.

Id	Name	SBO
DaL02UG	DaL02UG	

Products

Table 3512: Properties of each product.

Id	Name	SBO
Da02UG	Da02UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

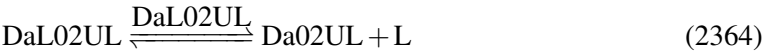
$$v_{1169} = k_u \cdot [\text{DaL02UG}] \tag{2363}$$

7.1170 Reaction r1170

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL02UL dissociates its ligand

Reaction equation



Reactant

Table 3513: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 3514: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Products

Table 3515: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1170} = k_u \cdot [\text{DaL02UL}] \tag{2365}$$

7.1171 Reaction r1171

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12UU dissociates its ligand

Reaction equation



Reactant

Table 3516: Properties of each reactant.

Id	Name	SBO
DaL12UU	DaL12UU	

Modifier

Table 3517: Properties of each modifier.

Id	Name	SBO
DaL12UU	DaL12UU	

Products

Table 3518: Properties of each product.

Id	Name	SBO
Da12UU	Da12UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1171} = k_u \cdot [\text{DaL12UU}] \tag{2367}$$

7.1172 Reaction r1172

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12CU dissociates its ligand

Reaction equation



Reactant

Table 3519: Properties of each reactant.

Id	Name	SBO
DaL12CU	DaL12CU	

Modifier

Table 3520: Properties of each modifier.

Id	Name	SBO
DaL12CU	DaL12CU	

Products

Table 3521: Properties of each product.

Id	Name	SBO
Da12CU	Da12CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

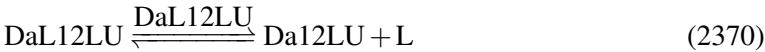
$$v_{1172} = k_u \cdot [\text{DaL12CU}] \tag{2369}$$

7.1173 Reaction r1173

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LU dissociates its ligand

Reaction equation



Reactant

Table 3522: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 3523: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Products

Table 3524: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

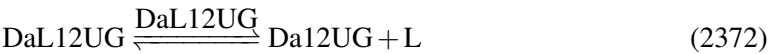
$$v_{1173} = k_u \cdot [\text{DaL12LU}] \tag{2371}$$

7.1174 Reaction r1174

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12UG dissociates its ligand

Reaction equation



Reactant

Table 3525: Properties of each reactant.

Id	Name	SBO
DaL12UG	DaL12UG	

Modifier

Table 3526: Properties of each modifier.

Id	Name	SBO
DaL12UG	DaL12UG	

Products

Table 3527: Properties of each product.

Id	Name	SBO
Da12UG	Da12UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1174} = k_u \cdot [\text{DaL12UG}]$$

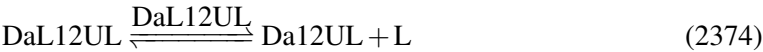
(2373)

7.1175 Reaction r1175

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12UL dissociates its ligand

Reaction equation



Reactant

Table 3528: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 3529: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Products

Table 3530: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1175} = k_u \cdot [\text{DaL12UL}] \tag{2375}$$

7.1176 Reaction r1176

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12CG dissociates its ligand

Reaction equation



Reactant

Table 3531: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 3532: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Products

Table 3533: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1176} = k_u \cdot [\text{DaL12CG}]$$

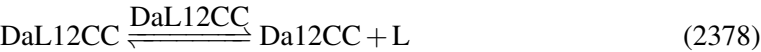
(2377)

7.1177 Reaction r1177

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12CC dissociates its ligand

Reaction equation



Reactant

Table 3534: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 3535: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Products

Table 3536: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

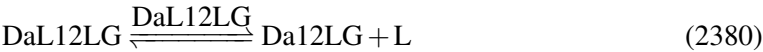
$$v_{1177} = k_u \cdot [\text{DaL12CC}] \tag{2379}$$

7.1178 Reaction r1178

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DaL12LG dissociates its ligand

Reaction equation



Reactant

Table 3537: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 3538: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Products

Table 3539: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1178} = k_u \cdot [\text{DaL12LG}]$$

(2381)

7.1179 Reaction r1179

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da00UU partner dissociates its ligand

Reaction equation



Reactant

Table 3540: Properties of each reactant.

Id	Name	SBO
Da00UU	Da00UU	

Modifier

Table 3541: Properties of each modifier.

Id	Name	SBO
Da00UU	Da00UU	

Product

Table 3542: Properties of each product.

Id	Name	SBO
Di00UU	Di00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1179} = k_u \cdot [\text{Da00UU}] \tag{2383}$$

7.1180 Reaction r1180

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10UU partner dissociates its ligand

Reaction equation



Reactant

Table 3543: Properties of each reactant.

Id	Name	SBO
Da10UU	Da10UU	

Modifier

Table 3544: Properties of each modifier.

Id	Name	SBO
Da10UU	Da10UU	

Product

Table 3545: Properties of each product.

Id	Name	SBO
Di10UU	Di10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1180} = k_u \cdot [\text{Da10UU}] \tag{2385}$$

7.1181 Reaction r1181

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10CU partner dissociates its ligand

Reaction equation



Reactant

Table 3546: Properties of each reactant.

Id	Name	SBO
Da10CU	Da10CU	

Modifier

Table 3547: Properties of each modifier.

Id	Name	SBO
Da10CU	Da10CU	

Product

Table 3548: Properties of each product.

Id	Name	SBO
Di10CU	Di10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1181} = k_u \cdot [\text{Da10CU}] \tag{2387}$$

7.1182 Reaction r1182

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10LU partner dissociates its ligand

Reaction equation



Reactant

Table 3549: Properties of each reactant.

Id	Name	SBO
Da10LU	Da10LU	

Modifier

Table 3550: Properties of each modifier.

Id	Name	SBO
Da10LU	Da10LU	

Product

Table 3551: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1182} = k_u \cdot [\text{Da10LU}] \quad (2389)$$

7.1183 Reaction r1183

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UU partner dissociates its ligand

Reaction equation



Reactant

Table 3552: Properties of each reactant.

Id	Name	SBO
Da01UU	Da01UU	

Modifier

Table 3553: Properties of each modifier.

Id	Name	SBO
Da01UU	Da01UU	

Product

Table 3554: Properties of each product.

Id	Name	SBO
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1183} = k_u \cdot [\text{Da01UU}] \quad (2391)$$

7.1184 Reaction r1184

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UG partner dissociates its ligand

Reaction equation**Reactant**

Table 3555: Properties of each reactant.

Id	Name	SBO
Da01UG	Da01UG	

Modifier

Table 3556: Properties of each modifier.

Id	Name	SBO
Da01UG	Da01UG	

Product

Table 3557: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1184} = k_u \cdot [\text{Da01UG}]$$

(2393)

7.1185 Reaction r1185

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UL partner dissociates its ligand

Reaction equation



Reactant

Table 3558: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	

Modifier

Table 3559: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	

Product

Table 3560: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1185} = k_u \cdot [\text{Da01UL}]$$

(2395)

7.1186 Reaction r1186

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UU partner dissociates its ligand

Reaction equation



Reactant

Table 3561: Properties of each reactant.

Id	Name	SBO
Da11UU	Da11UU	

Modifier

Table 3562: Properties of each modifier.

Id	Name	SBO
Da11UU	Da11UU	

Product

Table 3563: Properties of each product.

Id	Name	SBO
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1186} = k_u \cdot [\text{Da11UU}]$$

(2397)

7.1187 Reaction r1187

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CU partner dissociates its ligand

Reaction equation



Reactant

Table 3564: Properties of each reactant.

Id	Name	SBO
Da11CU	Da11CU	

Modifier

Table 3565: Properties of each modifier.

Id	Name	SBO
Da11CU	Da11CU	

Product

Table 3566: Properties of each product.

Id	Name	SBO
Di11CU	Di11CU	

Kinetic Law

Derived unit contains undeclared units

$v_{1187} = k_u \cdot [\text{Da11CU}]$

(2399)

7.1188 Reaction r1188

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LU partner dissociates its ligand

Reaction equation



Reactant

Table 3567: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 3568: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Product

Table 3569: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1188} = k_u \cdot [\text{Da11LU}]$$

(2401)

7.1189 Reaction r1189

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UG partner dissociates its ligand

Reaction equation



Reactant

Table 3570: Properties of each reactant.

Id	Name	SBO
Da11UG	Da11UG	

Modifier

Table 3571: Properties of each modifier.

Id	Name	SBO
Da11UG	Da11UG	

Product

Table 3572: Properties of each product.

Id	Name	SBO
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1189} = k_u \cdot [\text{Da11UG}] \tag{2403}$$

7.1190 Reaction r1190

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UL partner dissociates its ligand

Reaction equation



Reactant

Table 3573: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 3574: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Product

Table 3575: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1190} = k_u \cdot [\text{Da11UL}] \tag{2405}$$

7.1191 Reaction r1191

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CG partner dissociates its ligand

Reaction equation



Reactant

Table 3576: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	

Modifier

Table 3577: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	

Product

Table 3578: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1191} = k_u \cdot [\text{Da11CC}] \quad (2407)$$

7.1192 Reaction r1192

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CC partner dissociates its ligand

Reaction equation



Reactant

Table 3579: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	

Modifier

Table 3580: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	

Product

Table 3581: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1192} = k_u \cdot [\text{Da11CC}] \quad (2409)$$

7.1193 Reaction r1193

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LG partner dissociates its ligand

Reaction equation**Reactant**

Table 3582: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	

Modifier

Table 3583: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	

Product

Table 3584: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1193} = k_u \cdot [\text{Da11LG}]$$

(2411)

7.1194 Reaction r1194

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UU partner dissociates its ligand

Reaction equation



Reactant

Table 3585: Properties of each reactant.

Id	Name	SBO
Da02UU	Da02UU	

Modifier

Table 3586: Properties of each modifier.

Id	Name	SBO
Da02UU	Da02UU	

Product

Table 3587: Properties of each product.

Id	Name	SBO
Di02UU	Di02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1194} = k_u \cdot [\text{Da02UU}]$$

(2413)

7.1195 Reaction r1195

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UG partner dissociates its ligand

Reaction equation



Reactant

Table 3588: Properties of each reactant.

Id	Name	SBO
Da02UG	Da02UG	

Modifier

Table 3589: Properties of each modifier.

Id	Name	SBO
Da02UG	Da02UG	

Product

Table 3590: Properties of each product.

Id	Name	SBO
Di02UG	Di02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1195} = k_u \cdot [\text{Da02UG}]$$

(2415)

7.1196 Reaction r1196

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UL partner dissociates its ligand

Reaction equation



Reactant

Table 3591: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	

Modifier

Table 3592: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	

Product

Table 3593: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	

Kinetic Law

Derived unit contains undeclared units

$v_{1196} = k_u \cdot [\text{Da02UL}]$

(2417)

7.1197 Reaction r1197

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UU partner dissociates its ligand

Reaction equation



Reactant

Table 3594: Properties of each reactant.

Id	Name	SBO
Da12UU	Da12UU	

Modifier

Table 3595: Properties of each modifier.

Id	Name	SBO
Da12UU	Da12UU	

Product

Table 3596: Properties of each product.

Id	Name	SBO
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1197} = k_u \cdot [\text{Da12UU}]$$

(2419)

7.1198 Reaction r1198

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CU partner dissociates its ligand

Reaction equation



Reactant

Table 3597: Properties of each reactant.

Id	Name	SBO
Da12CU	Da12CU	

Modifier

Table 3598: Properties of each modifier.

Id	Name	SBO
Da12CU	Da12CU	

Product

Table 3599: Properties of each product.

Id	Name	SBO
Di12CU	Di12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1198} = k_u \cdot [\text{Da12CU}] \tag{2421}$$

7.1199 Reaction r1199

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LU partner dissociates its ligand

Reaction equation



Reactant

Table 3600: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	

Modifier

Table 3601: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	

Product

Table 3602: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1199} = k_u \cdot [\text{Da12LU}] \tag{2423}$$

7.1200 Reaction r1200

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UG partner dissociates its ligand

Reaction equation



Reactant

Table 3603: Properties of each reactant.

Id	Name	SBO
Da12UG	Da12UG	

Modifier

Table 3604: Properties of each modifier.

Id	Name	SBO
Da12UG	Da12UG	

Product

Table 3605: Properties of each product.

Id	Name	SBO
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1200} = k_u \cdot [\text{Da12UG}] \tag{2425}$$

7.1201 Reaction r1201

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UL partner dissociates its ligand

Reaction equation



Reactant

Table 3606: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 3607: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Product

Table 3608: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1201} = k_u \cdot [\text{Da12UL}] \quad (2427)$$

7.1202 Reaction r1202

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CG partner dissociates its ligand

Reaction equation



Reactant

Table 3609: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	

Modifier

Table 3610: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	

Product

Table 3611: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1202} = k_u \cdot [\text{Da12CG}]$$

(2429)

7.1203 Reaction r1203

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CC partner dissociates its ligand

Reaction equation



Reactant

Table 3612: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	

Modifier

Table 3613: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	

Product

Table 3614: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1203} = k_u \cdot [\text{Da12CC}]$$

(2431)

7.1204 Reaction r1204

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LG partner dissociates its ligand

Reaction equation



Reactant

Table 3615: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	

Modifier

Table 3616: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	

Product

Table 3617: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	

Kinetic Law

Derived unit contains undeclared units

$v_{1204} = k_u \cdot [\text{Da12LG}]$

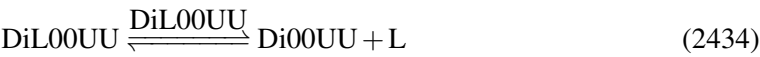
(2433)

7.1205 Reaction r1205

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL00UU dissociates its ligand

Reaction equation



Reactant

Table 3618: Properties of each reactant.

Id	Name	SBO
DiL00UU	DiL00UU	

Modifier

Table 3619: Properties of each modifier.

Id	Name	SBO
DiL00UU	DiL00UU	

Products

Table 3620: Properties of each product.

Id	Name	SBO
Di00UU	Di00UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1205} = k_u \cdot [\text{DiL00UU}]$$

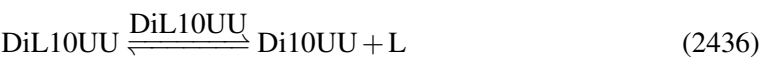
(2435)

7.1206 Reaction r1206

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL10UU dissociates its ligand

Reaction equation



Reactant

Table 3621: Properties of each reactant.

Id	Name	SBO
DiL10UU	DiL10UU	

Modifier

Table 3622: Properties of each modifier.

Id	Name	SBO
DiL10UU	DiL10UU	

Products

Table 3623: Properties of each product.

Id	Name	SBO
Di10UU	Di10UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

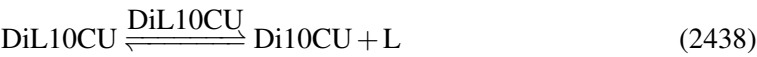
$$v_{1206} = k_u \cdot [\text{DiL10UU}] \tag{2437}$$

7.1207 Reaction r1207

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL10CU dissociates its ligand

Reaction equation



Reactant

Table 3624: Properties of each reactant.

Id	Name	SBO
DiL10CU	DiL10CU	

Modifier

Table 3625: Properties of each modifier.

Id	Name	SBO
DiL10CU	DiL10CU	

Products

Table 3626: Properties of each product.

Id	Name	SBO
Di10CU	Di10CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

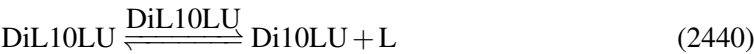
$$v_{1207} = k_u \cdot [\text{DiL10CU}] \tag{2439}$$

7.1208 Reaction r1208

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL10LU dissociates its ligand

Reaction equation



Reactant

Table 3627: Properties of each reactant.

Id	Name	SBO
DiL10LU	DiL10LU	

Modifier

Table 3628: Properties of each modifier.

Id	Name	SBO
DiL10LU	DiL10LU	

Products

Table 3629: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1208} = k_u \cdot [\text{DiL10LU}] \tag{2441}$$

7.1209 Reaction r1209

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL01UU dissociates its ligand

Reaction equation



Reactant

Table 3630: Properties of each reactant.

Id	Name	SBO
DiL01UU	DiL01UU	

Modifier

Table 3631: Properties of each modifier.

Id	Name	SBO
DiL01UU	DiL01UU	

Products

Table 3632: Properties of each product.

Id	Name	SBO
Di01UU	Di01UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1209} = k_u \cdot [\text{DiL01UU}]$$

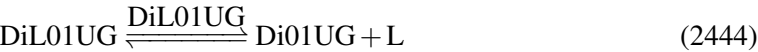
(2443)

7.1210 Reaction r1210

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL01UG dissociates its ligand

Reaction equation



Reactant

Table 3633: Properties of each reactant.

Id	Name	SBO
DiL01UG	DiL01UG	

Modifier

Table 3634: Properties of each modifier.

Id	Name	SBO
DiL01UG	DiL01UG	

Products

Table 3635: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

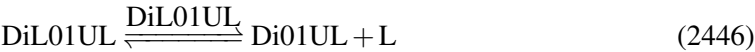
$$v_{1210} = k_u \cdot [\text{DiL01UG}] \tag{2445}$$

7.1211 Reaction r1211

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL01UL dissociates its ligand

Reaction equation



Reactant

Table 3636: Properties of each reactant.

Id	Name	SBO
DiL01UL	DiL01UL	

Modifier

Table 3637: Properties of each modifier.

Id	Name	SBO
DiL01UL	DiL01UL	

Products

Table 3638: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1211} = k_u \cdot [\text{DiL01UL}]$$

(2447)

7.1212 Reaction r1212

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11UU dissociates its ligand

Reaction equation



Reactant

Table 3639: Properties of each reactant.

Id	Name	SBO
DiL11UU	DiL11UU	

Modifier

Table 3640: Properties of each modifier.

Id	Name	SBO
DiL11UU	DiL11UU	

Products

Table 3641: Properties of each product.

Id	Name	SBO
Di11UU	Di11UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1212} = k_u \cdot [\text{DiL11UU}]$$

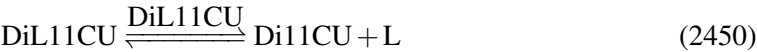
(2449)

7.1213 Reaction r1213

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11CU dissociates its ligand

Reaction equation



Reactant

Table 3642: Properties of each reactant.

Id	Name	SBO
DiL11CU	DiL11CU	

Modifier

Table 3643: Properties of each modifier.

Id	Name	SBO
DiL11CU	DiL11CU	

Products

Table 3644: Properties of each product.

Id	Name	SBO
Di11CU	Di11CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

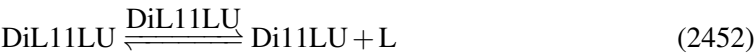
$$v_{1213} = k_u \cdot [\text{DiL11CU}] \tag{2451}$$

7.1214 Reaction r1214

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LU dissociates its ligand

Reaction equation



Reactant

Table 3645: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifier

Table 3646: Properties of each modifier.

Id	Name	SBO
DiL11LU	DiL11LU	

Products

Table 3647: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1214} = k_u \cdot [\text{DiL11LU}] \tag{2453}$$

7.1215 Reaction r1215

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11UG dissociates its ligand

Reaction equation



Reactant

Table 3648: Properties of each reactant.

Id	Name	SBO
DiL11UG	DiL11UG	

Modifier

Table 3649: Properties of each modifier.

Id	Name	SBO
DiL11UG	DiL11UG	

Products

Table 3650: Properties of each product.

Id	Name	SBO
Di11UG	Di11UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1215} = k_u \cdot [\text{DiL11UG}]$$

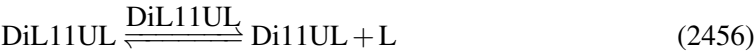
(2455)

7.1216 Reaction r1216

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11UL dissociates its ligand

Reaction equation



Reactant

Table 3651: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifier

Table 3652: Properties of each modifier.

Id	Name	SBO
DiL11UL	DiL11UL	

Products

Table 3653: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

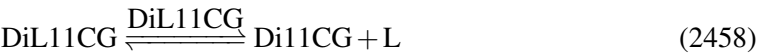
$$v_{1216} = k_u \cdot [\text{DiL11UL}] \tag{2457}$$

7.1217 Reaction r1217

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11CG dissociates its ligand

Reaction equation



Reactant

Table 3654: Properties of each reactant.

Id	Name	SBO
DiL11CG	DiL11CG	

Modifier

Table 3655: Properties of each modifier.

Id	Name	SBO
DiL11CG	DiL11CG	

Products

Table 3656: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

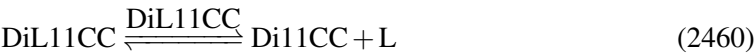
$$v_{1217} = k_u \cdot [\text{DiL11CG}] \tag{2459}$$

7.1218 Reaction r1218

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11CC dissociates its ligand

Reaction equation



Reactant

Table 3657: Properties of each reactant.

Id	Name	SBO
DiL11CC	DiL11CC	

Modifier

Table 3658: Properties of each modifier.

Id	Name	SBO
DiL11CC	DiL11CC	

Products

Table 3659: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

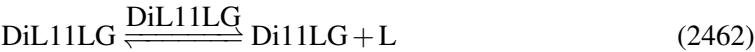
$$v_{1218} = k_u \cdot [\text{DiL11CC}] \tag{2461}$$

7.1219 Reaction r1219

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL11LG dissociates its ligand

Reaction equation



Reactant

Table 3660: Properties of each reactant.

Id	Name	SBO
DiL11LG	DiL11LG	

Modifier

Table 3661: Properties of each modifier.

Id	Name	SBO
DiL11LG	DiL11LG	

Products

Table 3662: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1219} = k_u \cdot [\text{DiL11LG}]$$

(2463)

7.1220 Reaction [r1220](#)

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL02UU dissociates its ligand

Reaction equation



Reactant

Table 3663: Properties of each reactant.

Id	Name	SBO
DiL02UU	DiL02UU	

Modifier

Table 3664: Properties of each modifier.

Id	Name	SBO
DiL02UU	DiL02UU	

Products

Table 3665: Properties of each product.

Id	Name	SBO
Di02UU	Di02UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1220} = k_u \cdot [\text{DiL02UU}] \tag{2465}$$

7.1221 Reaction r1221

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL02UG dissociates its ligand

Reaction equation



Reactant

Table 3666: Properties of each reactant.

Id	Name	SBO
DiL02UG	DiL02UG	

Modifier

Table 3667: Properties of each modifier.

Id	Name	SBO
DiL02UG	DiL02UG	

Products

Table 3668: Properties of each product.

Id	Name	SBO
Di02UG	Di02UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1221} = k_u \cdot [\text{DiL02UG}]$$

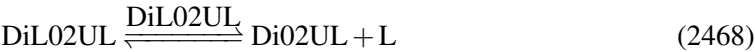
(2467)

7.1222 Reaction [r1222](#)

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL02UL dissociates its ligand

Reaction equation



Reactant

Table 3669: Properties of each reactant.

Id	Name	SBO
DiL02UL	DiL02UL	

Modifier

Table 3670: Properties of each modifier.

Id	Name	SBO
DiL02UL	DiL02UL	

Products

Table 3671: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1222} = k_u \cdot [\text{DiL02UL}] \tag{2469}$$

7.1223 Reaction r1223

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12UU dissociates its ligand

Reaction equation



Reactant

Table 3672: Properties of each reactant.

Id	Name	SBO
DiL12UU	DiL12UU	

Modifier

Table 3673: Properties of each modifier.

Id	Name	SBO
DiL12UU	DiL12UU	

Products

Table 3674: Properties of each product.

Id	Name	SBO
Di12UU	Di12UU	
L	L	

Kinetic Law

Derived unit contains undeclared units

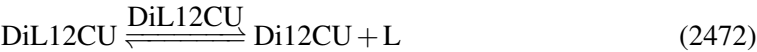
$$v_{1223} = k_u \cdot [\text{DiL12UU}] \tag{2471}$$

7.1224 Reaction r1224

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12CU dissociates its ligand

Reaction equation



Reactant

Table 3675: Properties of each reactant.

Id	Name	SBO
DiL12CU	DiL12CU	

Modifier

Table 3676: Properties of each modifier.

Id	Name	SBO
DiL12CU	DiL12CU	

Products

Table 3677: Properties of each product.

Id	Name	SBO
Di12CU	Di12CU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1224} = k_u \cdot [\text{DiL12CU}]$$

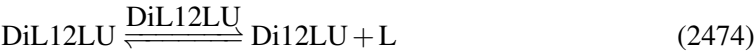
(2473)

7.1225 Reaction r1225

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LU dissociates its ligand

Reaction equation



Reactant

Table 3678: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifier

Table 3679: Properties of each modifier.

Id	Name	SBO
DiL12LU	DiL12LU	

Products

Table 3680: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1225} = k_u \cdot [\text{DiL12LU}]$$

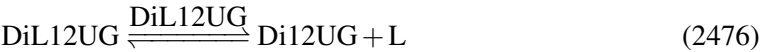
(2475)

7.1226 Reaction r1226

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12UG dissociates its ligand

Reaction equation



Reactant

Table 3681: Properties of each reactant.

Id	Name	SBO
DiL12UG	DiL12UG	

Modifier

Table 3682: Properties of each modifier.

Id	Name	SBO
DiL12UG	DiL12UG	

Products

Table 3683: Properties of each product.

Id	Name	SBO
Di12UG	Di12UG	
L	L	

Kinetic Law

Derived unit contains undeclared units

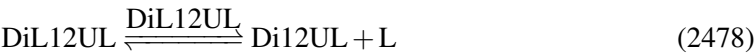
$$v_{1226} = k_u \cdot [\text{DiL12UG}] \tag{2477}$$

7.1227 Reaction r1227

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12UL dissociates its ligand

Reaction equation



Reactant

Table 3684: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 3685: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Products

Table 3686: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1227} = k_u \cdot [\text{DiL12UL}]$$

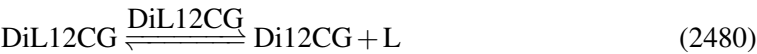
(2479)

7.1228 Reaction r1228

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12CG dissociates its ligand

Reaction equation



Reactant

Table 3687: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifier

Table 3688: Properties of each modifier.

Id	Name	SBO
DiL12CG	DiL12CG	

Products

Table 3689: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1228} = k_u \cdot [\text{DiL12CG}]$$

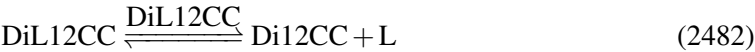
(2481)

7.1229 Reaction r1229

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12CC dissociates its ligand

Reaction equation



Reactant

Table 3690: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifier

Table 3691: Properties of each modifier.

Id	Name	SBO
DiL12CC	DiL12CC	

Products

Table 3692: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1229} = k_u \cdot [\text{DiL12CC}]$$

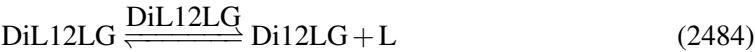
(2483)

7.1230 Reaction r1230

This is a reversible reaction of one reactant forming two products influenced by one modifier.

Name DiL12LG dissociates its ligand

Reaction equation



Reactant

Table 3693: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifier

Table 3694: Properties of each modifier.

Id	Name	SBO
DiL12LG	DiL12LG	

Products

Table 3695: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	
L	L	

Kinetic Law

Derived unit contains undeclared units

$$v_{1230} = k_u \cdot [\text{DiL12LG}]$$

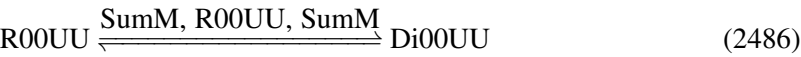
(2485)

7.1231 Reaction r1231

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R00UU dimerizes to Di00UU

Reaction equation



Reactant

Table 3696: Properties of each reactant.

Id	Name	SBO
R00UU	R00UU	

Modifiers

Table 3697: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R00UU	R00UU	
SumM	SumM	

Product

Table 3698: Properties of each product.

Id	Name	SBO
Di00UU	Di00UU	

Kinetic Law

Derived unit contains undeclared units

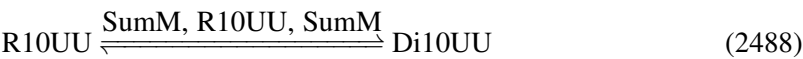
$$v_{1231} = k_{bDIM} \cdot [R00UU] \cdot [SumM] \tag{2487}$$

7.1232 Reaction r1232

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R10UU dimerizes to Di10UU

Reaction equation



Reactant

Table 3699: Properties of each reactant.

Id	Name	SBO
R10UU	R10UU	

Modifiers

Table 3700: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R10UU	R10UU	
SumM	SumM	

Product

Table 3701: Properties of each product.

Id	Name	SBO
Di10UU	Di10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1232} = kbDIM \cdot [R10UU] \cdot [SumM]$$

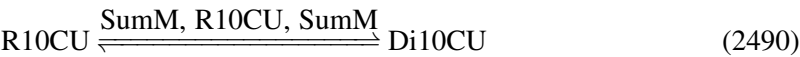
(2489)

7.1233 Reaction r1233

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R10CU dimerizes to Di10CU

Reaction equation



Reactant

Table 3702: Properties of each reactant.

Id	Name	SBO
R10CU	R10CU	

Modifiers

Table 3703: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R10CU	R10CU	
SumM	SumM	

Product

Table 3704: Properties of each product.

Id	Name	SBO
Di10CU	Di10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1233} = kbDIM \cdot [R10CU] \cdot [SumM]$$

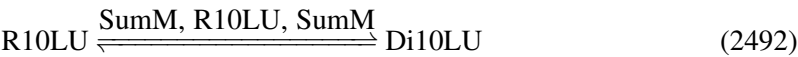
(2491)

7.1234 Reaction r1234

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R10LU dimerizes to Di10LU

Reaction equation



Reactant

Table 3705: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	

Modifiers

Table 3706: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R10LU	R10LU	
SumM	SumM	

Product

Table 3707: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1234} = kbDIM \cdot [R10LU] \cdot [SumM]$$

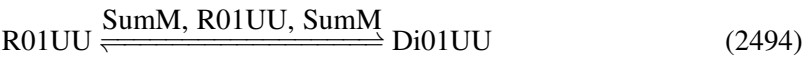
(2493)

7.1235 Reaction r1235

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R01UU dimerizes to Di01UU

Reaction equation



Reactant

Table 3708: Properties of each reactant.

Id	Name	SBO
R01UU	R01UU	

Modifiers

Table 3709: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R01UU	R01UU	
SumM	SumM	

Product

Table 3710: Properties of each product.

Id	Name	SBO
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

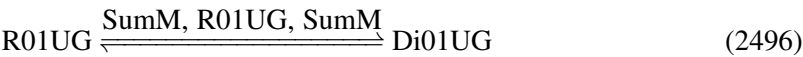
$$v_{1235} = kbDIM \cdot [R01UU] \cdot [SumM] \tag{2495}$$

7.1236 Reaction r1236

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R01UG dimerizes to Di01UG

Reaction equation



Reactant

Table 3711: Properties of each reactant.

Id	Name	SBO
R01UG	R01UG	

Modifiers

Table 3712: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R01UG	R01UG	
SumM	SumM	

Product

Table 3713: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1236} = k_{bDIM} \cdot [R01UG] \cdot [SumM]$$

(2497)

7.1237 Reaction r1237

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R01UL dimerizes to Di01UL

Reaction equation



Reactant

Table 3714: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	

Modifiers

Table 3715: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R01UL	R01UL	
SumM	SumM	

Product

Table 3716: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

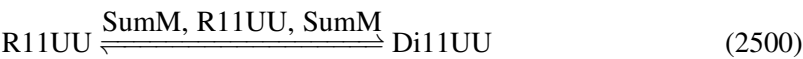
$$v_{1237} = kbDIM \cdot [R01UL] \cdot [SumM] \tag{2499}$$

7.1238 Reaction r1238

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11UU dimerizes to Di11UU

Reaction equation



Reactant

Table 3717: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	

Modifiers

Table 3718: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11UU	R11UU	
SumM	SumM	

Product

Table 3719: Properties of each product.

Id	Name	SBO
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1238} = k_{bDIM} \cdot [R11UU] \cdot [SumM]$$

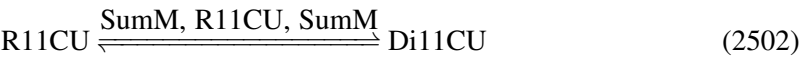
(2501)

7.1239 Reaction r1239

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11CU dimerizes to Di11CU

Reaction equation



Reactant

Table 3720: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	

Modifiers

Table 3721: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11CU	R11CU	
SumM	SumM	

Product

Table 3722: Properties of each product.

Id	Name	SBO
Di11CU	Di11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1239} = kbDIM \cdot [R11CU] \cdot [SumM]$$

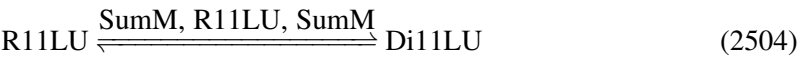
(2503)

7.1240 Reaction r1240

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11LU dimerizes to Di11LU

Reaction equation



Reactant

Table 3723: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifiers

Table 3724: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11LU	R11LU	
SumM	SumM	

Product

Table 3725: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1240} = kbDIM \cdot [R11LU] \cdot [SumM]$$

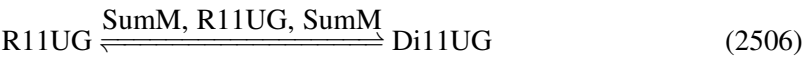
(2505)

7.1241 Reaction r1241

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11UG dimerizes to Di11UG

Reaction equation



Reactant

Table 3726: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	

Modifiers

Table 3727: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11UG	R11UG	
SumM	SumM	

Product

Table 3728: Properties of each product.

Id	Name	SBO
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1241} = k_{bDIM} \cdot [R11UG] \cdot [SumM]$$

(2507)

7.1242 Reaction r1242

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11UL dimerizes to Di11UL

Reaction equation



Reactant

Table 3729: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifiers

Table 3730: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11UL	R11UL	
SumM	SumM	

Product

Table 3731: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

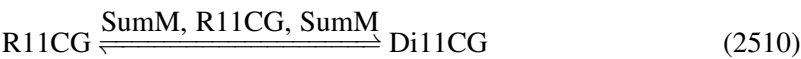
$$v_{1242} = kbDIM \cdot [R11UL] \cdot [SumM] \tag{2509}$$

7.1243 Reaction r1243

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11CG dimerizes to Di11CG

Reaction equation



Reactant

Table 3732: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifiers

Table 3733: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11CG	R11CG	
SumM	SumM	

Product

Table 3734: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

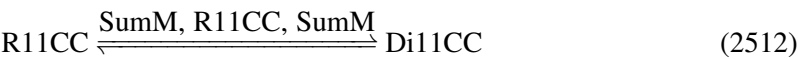
$$v_{1243} = kbDIM \cdot [R11CG] \cdot [SumM] \tag{2511}$$

7.1244 Reaction [r1244](#)

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11CC dimerizes to Di11CC

Reaction equation



Reactant

Table 3735: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifiers

Table 3736: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11CC	R11CC	
SumM	SumM	

Product

Table 3737: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

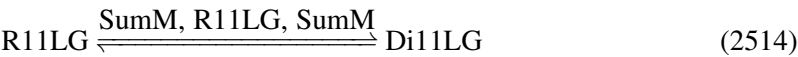
$$v_{1244} = kbDIM \cdot [R11CC] \cdot [SumM] \tag{2513}$$

7.1245 Reaction r1245

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11LG dimerizes to Di11LG

Reaction equation



Reactant

Table 3738: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifiers

Table 3739: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R11LG	R11LG	
SumM	SumM	

Product

Table 3740: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1245} = k_{bDIM} \cdot [R11LG] \cdot [SumM]$$

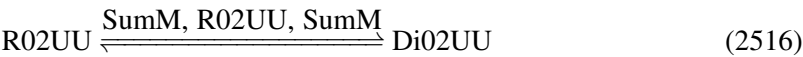
(2515)

7.1246 Reaction r1246

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R02UU dimerizes to Di02UU

Reaction equation



Reactant

Table 3741: Properties of each reactant.

Id	Name	SBO
R02UU	R02UU	

Modifiers

Table 3742: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R02UU	R02UU	
SumM	SumM	

Product

Table 3743: Properties of each product.

Id	Name	SBO
Di02UU	Di02UU	

Kinetic Law

Derived unit contains undeclared units

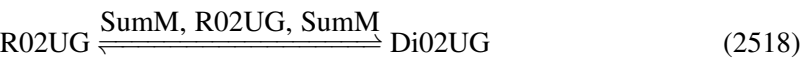
$$v_{1246} = kbDIM \cdot [R02UU] \cdot [SumM] \tag{2517}$$

7.1247 Reaction r1247

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R02UG dimerizes to Di02UG

Reaction equation



Reactant

Table 3744: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	

Modifiers

Table 3745: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R02UG	R02UG	
SumM	SumM	

Product

Table 3746: Properties of each product.

Id	Name	SBO
Di02UG	Di02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1247} = k_{bDIM} \cdot [R02UG] \cdot [SumM]$$

(2519)

7.1248 Reaction r1248

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R02UL dimerizes to Di02UL

Reaction equation



Reactant

Table 3747: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifiers

Table 3748: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R02UL	R02UL	
SumM	SumM	

Product

Table 3749: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1248} = kbDIM \cdot [R02UL] \cdot [SumM]$$

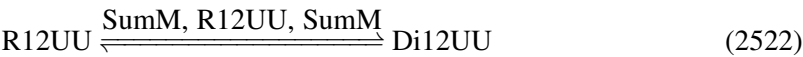
(2521)

7.1249 Reaction r1249

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12UU dimerizes to Di12UU

Reaction equation



Reactant

Table 3750: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	

Modifiers

Table 3751: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12UU	R12UU	
SumM	SumM	

Product

Table 3752: Properties of each product.

Id	Name	SBO
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1249} = k_{bDIM} \cdot [R12UU] \cdot [SumM]$$

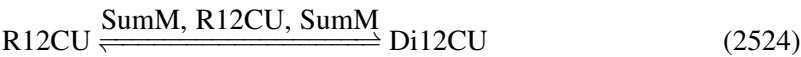
(2523)

7.1250 Reaction r1250

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12CU dimerizes to Di12CU

Reaction equation



Reactant

Table 3753: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	

Modifiers

Table 3754: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12CU	R12CU	
SumM	SumM	

Product

Table 3755: Properties of each product.

Id	Name	SBO
Di12CU	Di12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1250} = kbDIM \cdot [R12CU] \cdot [SumM]$$

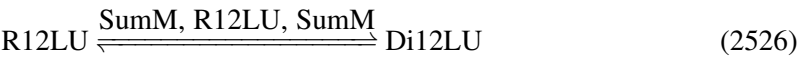
(2525)

7.1251 Reaction r1251

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12LU dimerizes to Di12LU

Reaction equation



Reactant

Table 3756: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifiers

Table 3757: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12LU	R12LU	
SumM	SumM	

Product

Table 3758: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1251} = kbDIM \cdot [R12LU] \cdot [SumM]$$

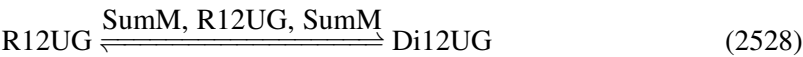
(2527)

7.1252 Reaction r1252

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12UG dimerizes to Di12UG

Reaction equation



Reactant

Table 3759: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifiers

Table 3760: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12UG	R12UG	
SumM	SumM	

Product

Table 3761: Properties of each product.

Id	Name	SBO
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

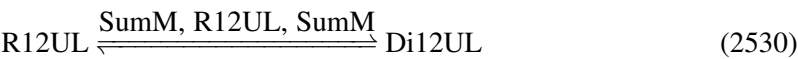
$$v_{1252} = k_{bDIM} \cdot [R12UG] \cdot [SumM] \tag{2529}$$

7.1253 Reaction r1253

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12UL dimerizes to Di12UL

Reaction equation



Reactant

Table 3762: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifiers

Table 3763: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12UL	R12UL	
SumM	SumM	

Product

Table 3764: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1253} = kbDIM \cdot [R12UL] \cdot [SumM]$$

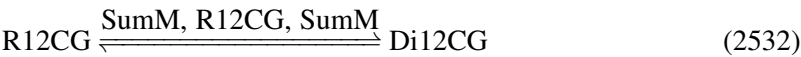
(2531)

7.1254 Reaction r1254

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12CG dimerizes to Di12CG

Reaction equation



Reactant

Table 3765: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifiers

Table 3766: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12CG	R12CG	
SumM	SumM	

Product

Table 3767: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	

Kinetic Law

Derived unit contains undeclared units

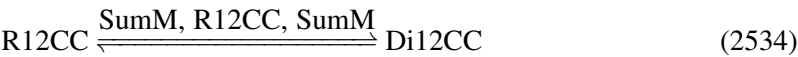
$$v_{1254} = kbDIM \cdot [R12CG] \cdot [SumM] \tag{2533}$$

7.1255 Reaction r1255

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12CC dimerizes to Di12CC

Reaction equation



Reactant

Table 3768: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifiers

Table 3769: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12CC	R12CC	
SumM	SumM	

Product

Table 3770: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	

Kinetic Law

Derived unit contains undeclared units

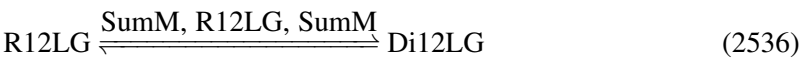
$$v_{1255} = kbDIM \cdot [R12CC] \cdot [SumM] \tag{2535}$$

7.1256 Reaction r1256

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12LG dimerizes to Di12LG

Reaction equation



Reactant

Table 3771: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifiers

Table 3772: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
R12LG	R12LG	
SumM	SumM	

Product

Table 3773: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1256} = kbDIM \cdot [R12LG] \cdot [SumM]$$

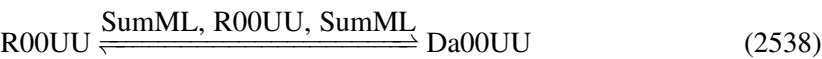
(2537)

7.1257 Reaction r1257

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R00UU dimerizes to Da00UU

Reaction equation



Reactant

Table 3774: Properties of each reactant.

Id	Name	SBO
R00UU	R00UU	

Modifiers

Table 3775: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R00UU	R00UU	
SumML	SumML	

Product

Table 3776: Properties of each product.

Id	Name	SBO
Da00UU	Da00UU	

Kinetic Law

Derived unit contains undeclared units

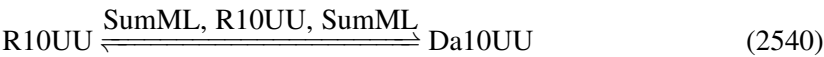
$$v_{1257} = kbDIM \cdot [R00UU] \cdot [SumML] \tag{2539}$$

7.1258 Reaction r1258

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R10UU dimerizes to Da10UU

Reaction equation



Reactant

Table 3777: Properties of each reactant.

Id	Name	SBO
R10UU	R10UU	

Modifiers

Table 3778: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R10UU	R10UU	
SumML	SumML	

Product

Table 3779: Properties of each product.

Id	Name	SBO
Da10UU	Da10UU	

Kinetic Law

Derived unit contains undeclared units

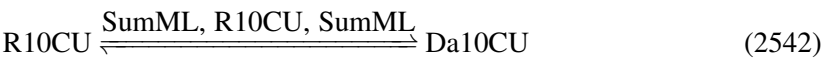
$$v_{1258} = kbDIM \cdot [R10UU] \cdot [SumML] \tag{2541}$$

7.1259 Reaction r1259

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R10CU dimerizes to Da10CU

Reaction equation



Reactant

Table 3780: Properties of each reactant.

Id	Name	SBO
R10CU	R10CU	

Modifiers

Table 3781: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R10CU	R10CU	
SumML	SumML	

Product

Table 3782: Properties of each product.

Id	Name	SBO
Da10CU	Da10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1259} = kbDIM \cdot [R10CU] \cdot [SumML]$$

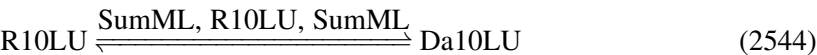
(2543)

7.1260 Reaction r1260

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R10LU dimerizes to Da10LU

Reaction equation



Reactant

Table 3783: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	

Modifiers

Table 3784: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R10LU	R10LU	
SumML	SumML	

Product

Table 3785: Properties of each product.

Id	Name	SBO
Da10LU	Da10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1260} = kbDIM \cdot [R10LU] \cdot [SumML]$$

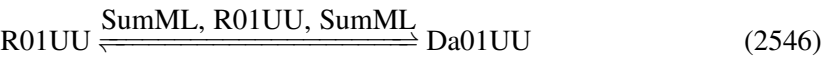
(2545)

7.1261 Reaction r1261

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R01UU dimerizes to Da01UU

Reaction equation



Reactant

Table 3786: Properties of each reactant.

Id	Name	SBO
R01UU	R01UU	

Modifiers

Table 3787: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R01UU	R01UU	
SumML	SumML	

Product

Table 3788: Properties of each product.

Id	Name	SBO
Da01UU	Da01UU	

Kinetic Law

Derived unit contains undeclared units

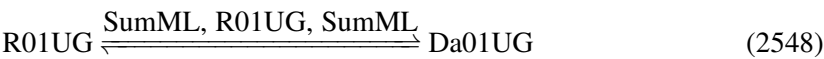
$$v_{1261} = kbDIM \cdot [R01UU] \cdot [SumML] \tag{2547}$$

7.1262 Reaction r1262

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R01UG dimerizes to Da01UG

Reaction equation



Reactant

Table 3789: Properties of each reactant.

Id	Name	SBO
R01UG	R01UG	

Modifiers

Table 3790: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R01UG	R01UG	
SumML	SumML	

Product

Table 3791: Properties of each product.

Id	Name	SBO
Da01UG	Da01UG	

Kinetic Law

Derived unit contains undeclared units

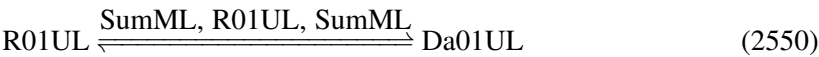
$$v_{1262} = kbDIM \cdot [R01UG] \cdot [SumML] \tag{2549}$$

7.1263 Reaction r1263

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R01UL dimerizes to Da01UL

Reaction equation



Reactant

Table 3792: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	

Modifiers

Table 3793: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R01UL	R01UL	
SumML	SumML	

Product

Table 3794: Properties of each product.

Id	Name	SBO
Da01UL	Da01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1263} = kbDIM \cdot [R01UL] \cdot [SumML]$$

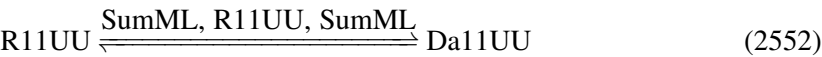
(2551)

7.1264 Reaction r1264

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11UU dimerizes to Da11UU

Reaction equation



Reactant

Table 3795: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	

Modifiers

Table 3796: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11UU	R11UU	
SumML	SumML	

Product

Table 3797: Properties of each product.

Id	Name	SBO
Da11UU	Da11UU	

Kinetic Law

Derived unit contains undeclared units

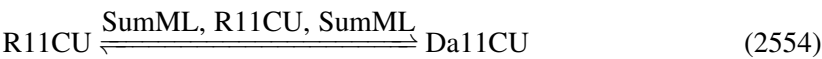
$$v_{1264} = kbDIM \cdot [R11UU] \cdot [SumML] \tag{2553}$$

7.1265 Reaction r1265

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11CU dimerizes to Da11CU

Reaction equation



Reactant

Table 3798: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	

Modifiers

Table 3799: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11CU	R11CU	
SumML	SumML	

Product

Table 3800: Properties of each product.

Id	Name	SBO
Da11CU	Da11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1265} = kbDIM \cdot [R11CU] \cdot [SumML]$$

(2555)

7.1266 Reaction r1266

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11LU dimerizes to Da11LU

Reaction equation



Reactant

Table 3801: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifiers

Table 3802: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11LU	R11LU	
SumML	SumML	

Product

Table 3803: Properties of each product.

Id	Name	SBO
Da11LU	Da11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1266} = kbDIM \cdot [R11LU] \cdot [SumML]$$

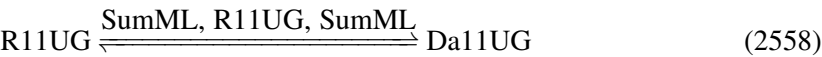
(2557)

7.1267 Reaction r1267

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11UG dimerizes to Da11UG

Reaction equation



Reactant

Table 3804: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	

Modifiers

Table 3805: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11UG	R11UG	
SumML	SumML	

Product

Table 3806: Properties of each product.

Id	Name	SBO
Da11UG	Da11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1267} = kbDIM \cdot [R11UG] \cdot [SumML]$$

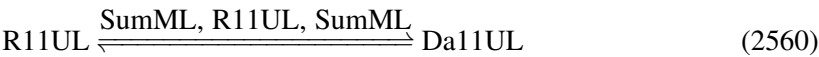
(2559)

7.1268 Reaction r1268

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11UL dimerizes to Da11UL

Reaction equation



Reactant

Table 3807: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifiers

Table 3808: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11UL	R11UL	
SumML	SumML	

Product

Table 3809: Properties of each product.

Id	Name	SBO
Da11UL	Da11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1268} = kbDIM \cdot [R11UL] \cdot [SumML]$$

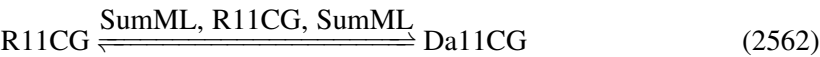
(2561)

7.1269 Reaction r1269

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11CG dimerizes to Da11CG

Reaction equation



Reactant

Table 3810: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifiers

Table 3811: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11CG	R11CG	
SumML	SumML	

Product

Table 3812: Properties of each product.

Id	Name	SBO
Da11CG	Da11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1269} = kbDIM \cdot [R11CG] \cdot [SumML]$$

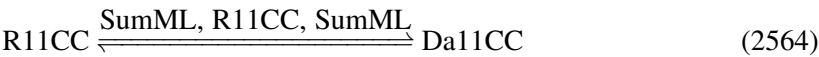
(2563)

7.1270 Reaction r1270

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11CC dimerizes to Da11CC

Reaction equation



Reactant

Table 3813: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifiers

Table 3814: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11CC	R11CC	
SumML	SumML	

Product

Table 3815: Properties of each product.

Id	Name	SBO
Da11CC	Da11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1270} = kbDIM \cdot [R11CC] \cdot [SumML]$$

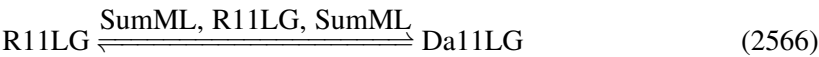
(2565)

7.1271 Reaction r1271

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R11LG dimerizes to Da11LG

Reaction equation



Reactant

Table 3816: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifiers

Table 3817: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R11LG	R11LG	
SumML	SumML	

Product

Table 3818: Properties of each product.

Id	Name	SBO
Da11LG	Da11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1271} = kbDIM \cdot [R11LG] \cdot [SumML]$$

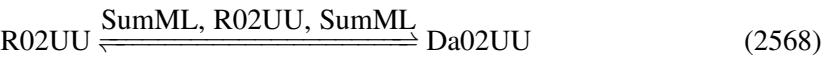
(2567)

7.1272 Reaction r1272

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R02UU dimerizes to Da02UU

Reaction equation



Reactant

Table 3819: Properties of each reactant.

Id	Name	SBO
R02UU	R02UU	

Modifiers

Table 3820: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R02UU	R02UU	
SumML	SumML	

Product

Table 3821: Properties of each product.

Id	Name	SBO
Da02UU	Da02UU	

Kinetic Law

Derived unit contains undeclared units

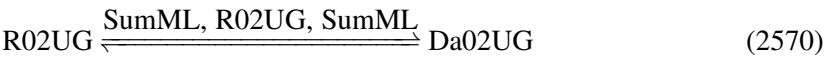
$$v_{1272} = kbDIM \cdot [R02UU] \cdot [SumML] \tag{2569}$$

7.1273 Reaction r1273

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R02UG dimerizes to Da02UG

Reaction equation



Reactant

Table 3822: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	

Modifiers

Table 3823: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R02UG	R02UG	
SumML	SumML	

Product

Table 3824: Properties of each product.

Id	Name	SBO
Da02UG	Da02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1273} = kbDIM \cdot [R02UG] \cdot [SumML]$$

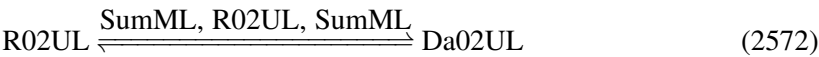
(2571)

7.1274 Reaction r1274

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R02UL dimerizes to Da02UL

Reaction equation



Reactant

Table 3825: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifiers

Table 3826: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R02UL	R02UL	
SumML	SumML	

Product

Table 3827: Properties of each product.

Id	Name	SBO
Da02UL	Da02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1274} = kbDIM \cdot [R02UL] \cdot [SumML]$$

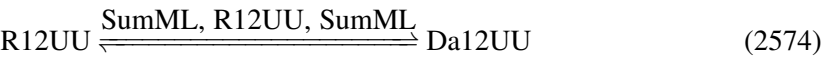
(2573)

7.1275 Reaction r1275

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12UU dimerizes to Da12UU

Reaction equation



Reactant

Table 3828: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	

Modifiers

Table 3829: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12UU	R12UU	
SumML	SumML	

Product

Table 3830: Properties of each product.

Id	Name	SBO
Da12UU	Da12UU	

Kinetic Law

Derived unit contains undeclared units

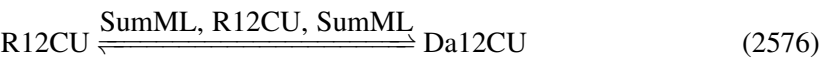
$$v_{1275} = kbDIM \cdot [R12UU] \cdot [SumML] \tag{2575}$$

7.1276 Reaction r1276

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12CU dimerizes to Da12CU

Reaction equation



Reactant

Table 3831: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	

Modifiers

Table 3832: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12CU	R12CU	
SumML	SumML	

Product

Table 3833: Properties of each product.

Id	Name	SBO
Da12CU	Da12CU	

Kinetic Law

Derived unit contains undeclared units

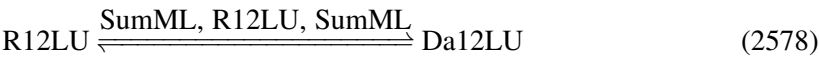
$$v_{1276} = kbDIM \cdot [R12CU] \cdot [SumML] \tag{2577}$$

7.1277 Reaction r1277

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12LU dimerizes to Da12LU

Reaction equation



Reactant

Table 3834: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifiers

Table 3835: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12LU	R12LU	
SumML	SumML	

Product

Table 3836: Properties of each product.

Id	Name	SBO
Da12LU	Da12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1277} = kbDIM \cdot [R12LU] \cdot [SumML]$$

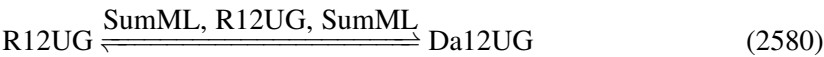
(2579)

7.1278 Reaction r1278

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12UG dimerizes to Da12UG

Reaction equation



Reactant

Table 3837: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifiers

Table 3838: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12UG	R12UG	
SumML	SumML	

Product

Table 3839: Properties of each product.

Id	Name	SBO
Da12UG	Da12UG	

Kinetic Law

Derived unit contains undeclared units

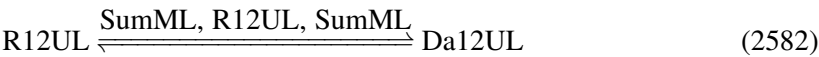
$$v_{1278} = kbDIM \cdot [R12UG] \cdot [SumML] \tag{2581}$$

7.1279 Reaction r1279

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12UL dimerizes to Da12UL

Reaction equation



Reactant

Table 3840: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifiers

Table 3841: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12UL	R12UL	
SumML	SumML	

Product

Table 3842: Properties of each product.

Id	Name	SBO
Da12UL	Da12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1279} = kbDIM \cdot [R12UL] \cdot [SumML]$$

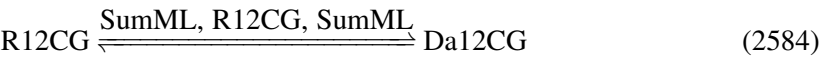
(2583)

7.1280 Reaction r1280

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12CG dimerizes to Da12CG

Reaction equation



Reactant

Table 3843: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifiers

Table 3844: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12CG	R12CG	
SumML	SumML	

Product

Table 3845: Properties of each product.

Id	Name	SBO
Da12CG	Da12CG	

Kinetic Law

Derived unit contains undeclared units

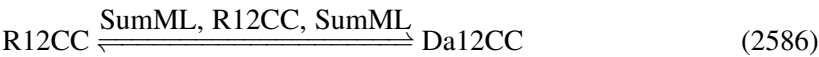
$$v_{1280} = kbDIM \cdot [R12CG] \cdot [SumML] \tag{2585}$$

7.1281 Reaction r1281

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12CC dimerizes to Da12CC

Reaction equation



Reactant

Table 3846: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifiers

Table 3847: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12CC	R12CC	
SumML	SumML	

Product

Table 3848: Properties of each product.

Id	Name	SBO
Da12CC	Da12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1281} = kbDIM \cdot [R12CC] \cdot [SumML]$$

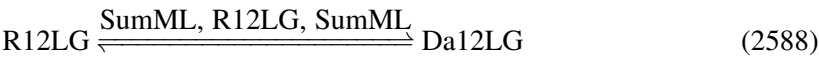
(2587)

7.1282 Reaction r1282

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name R12LG dimerizes to Da12LG

Reaction equation



Reactant

Table 3849: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifiers

Table 3850: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
R12LG	R12LG	
SumML	SumML	

Product

Table 3851: Properties of each product.

Id	Name	SBO
Da12LG	Da12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1282} = kbDIM \cdot [R12LG] \cdot [SumML]$$

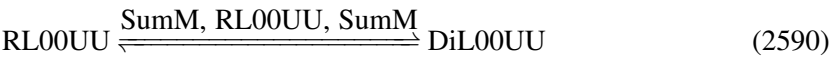
(2589)

7.1283 Reaction r1283

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL00UU dimerizes to DiL00UU

Reaction equation



Reactant

Table 3852: Properties of each reactant.

Id	Name	SBO
RL00UU	RL00UU	

Modifiers

Table 3853: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL00UU	RL00UU	
SumM	SumM	

Product

Table 3854: Properties of each product.

Id	Name	SBO
DiL00UU	DiL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1283} = k_{bDIM} \cdot [RL00UU] \cdot [SumM]$$

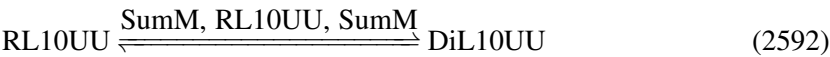
(2591)

7.1284 Reaction r1284

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL10UU dimerizes to DiL10UU

Reaction equation



Reactant

Table 3855: Properties of each reactant.

Id	Name	SBO
RL10UU	RL10UU	

Modifiers

Table 3856: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL10UU	RL10UU	
SumM	SumM	

Product

Table 3857: Properties of each product.

Id	Name	SBO
DiL10UU	DiL10UU	

Kinetic Law

Derived unit contains undeclared units

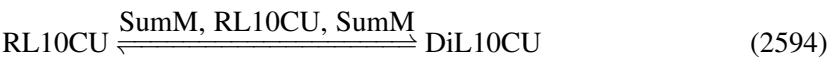
$$v_{1284} = kbDIM \cdot [RL10UU] \cdot [SumM] \tag{2593}$$

7.1285 Reaction r1285

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL10CU dimerizes to DiL10CU

Reaction equation



Reactant

Table 3858: Properties of each reactant.

Id	Name	SBO
RL10CU	RL10CU	

Modifiers

Table 3859: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL10CU	RL10CU	
SumM	SumM	

Product

Table 3860: Properties of each product.

Id	Name	SBO
DiL10CU	DiL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1285} = kbDIM \cdot [RL10CU] \cdot [SumM]$$

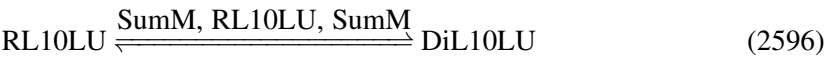
(2595)

7.1286 Reaction r1286

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL10LU dimerizes to DiL10LU

Reaction equation



Reactant

Table 3861: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifiers

Table 3862: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL10LU	RL10LU	
SumM	SumM	

Product

Table 3863: Properties of each product.

Id	Name	SBO
DiL10LU	DiL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1286} = kbDIM \cdot [RL10LU] \cdot [SumM]$$

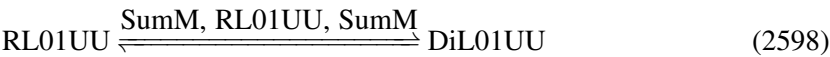
(2597)

7.1287 Reaction r1287

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL01UU dimerizes to DiL01UU

Reaction equation



Reactant

Table 3864: Properties of each reactant.

Id	Name	SBO
RL01UU	RL01UU	

Modifiers

Table 3865: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL01UU	RL01UU	
SumM	SumM	

Product

Table 3866: Properties of each product.

Id	Name	SBO
DiL01UU	DiL01UU	

Kinetic Law

Derived unit contains undeclared units

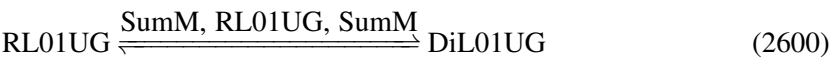
$$v_{1287} = kbDIM \cdot [RL01UU] \cdot [SumM] \tag{2599}$$

7.1288 Reaction r1288

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL01UG dimerizes to DiL01UG

Reaction equation



Reactant

Table 3867: Properties of each reactant.

Id	Name	SBO
RL01UG	RL01UG	

Modifiers

Table 3868: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL01UG	RL01UG	
SumM	SumM	

Product

Table 3869: Properties of each product.

Id	Name	SBO
DiL01UG	DiL01UG	

Kinetic Law

Derived unit contains undeclared units

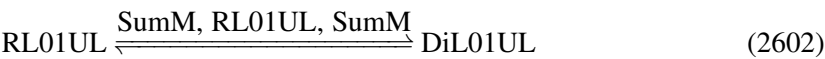
$$v_{1288} = kbDIM \cdot [RL01UG] \cdot [SumM] \tag{2601}$$

7.1289 Reaction r1289

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL01UL dimerizes to DiL01UL

Reaction equation



Reactant

Table 3870: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifiers

Table 3871: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL01UL	RL01UL	
SumM	SumM	

Product

Table 3872: Properties of each product.

Id	Name	SBO
DiL01UL	DiL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1289} = kbDIM \cdot [RL01UL] \cdot [SumM]$$

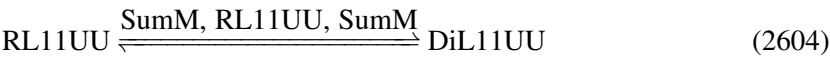
(2603)

7.1290 Reaction r1290

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11UU dimerizes to DiL11UU

Reaction equation



Reactant

Table 3873: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifiers

Table 3874: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11UU	RL11UU	
SumM	SumM	

Product

Table 3875: Properties of each product.

Id	Name	SBO
DiL11UU	DiL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1290} = kbDIM \cdot [RL11UU] \cdot [SumM]$$

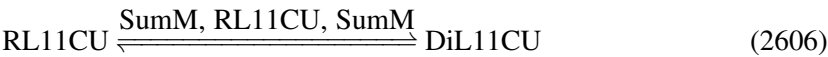
(2605)

7.1291 Reaction r1291

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11CU dimerizes to DiL11CU

Reaction equation



Reactant

Table 3876: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifiers

Table 3877: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11CU	RL11CU	
SumM	SumM	

Product

Table 3878: Properties of each product.

Id	Name	SBO
DiL11CU	DiL11CU	

Kinetic Law

Derived unit contains undeclared units

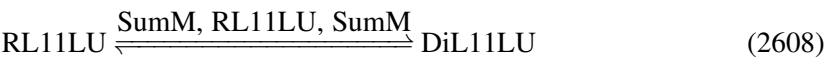
$$v_{1291} = kbDIM \cdot [RL11CU] \cdot [SumM] \tag{2607}$$

7.1292 Reaction r1292

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11LU dimerizes to DiL11LU

Reaction equation



Reactant

Table 3879: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifiers

Table 3880: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11LU	RL11LU	
SumM	SumM	

Product

Table 3881: Properties of each product.

Id	Name	SBO
DiL11LU	DiL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1292} = kbDIM \cdot [RL11LU] \cdot [SumM]$$

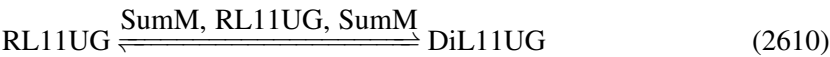
(2609)

7.1293 Reaction r1293

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11UG dimerizes to DiL11UG

Reaction equation



Reactant

Table 3882: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifiers

Table 3883: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11UG	RL11UG	
SumM	SumM	

Product

Table 3884: Properties of each product.

Id	Name	SBO
DiL11UG	DiL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1293} = kbDIM \cdot [RL11UG] \cdot [SumM]$$

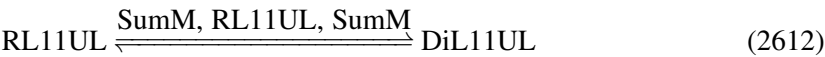
(2611)

7.1294 Reaction r1294

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11UL dimerizes to DiL11UL

Reaction equation



Reactant

Table 3885: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifiers

Table 3886: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11UL	RL11UL	
SumM	SumM	

Product

Table 3887: Properties of each product.

Id	Name	SBO
DiL11UL	DiL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1294} = k_{bDIM} \cdot [RL11UL] \cdot [SumM]$$

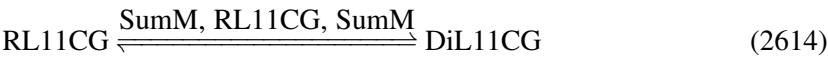
(2613)

7.1295 Reaction r1295

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11CG dimerizes to DiL11CG

Reaction equation



Reactant

Table 3888: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifiers

Table 3889: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11CG	RL11CG	
SumM	SumM	

Product

Table 3890: Properties of each product.

Id	Name	SBO
DiL11CG	DiL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1295} = kbDIM \cdot [RL11CG] \cdot [SumM]$$

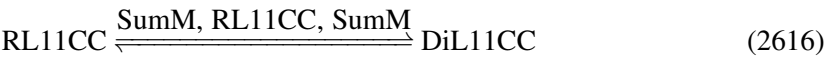
(2615)

7.1296 Reaction r1296

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11CC dimerizes to DiL11CC

Reaction equation



Reactant

Table 3891: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifiers

Table 3892: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11CC	RL11CC	
SumM	SumM	

Product

Table 3893: Properties of each product.

Id	Name	SBO
DiL11CC	DiL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1296} = kbDIM \cdot [RL11CC] \cdot [SumM]$$

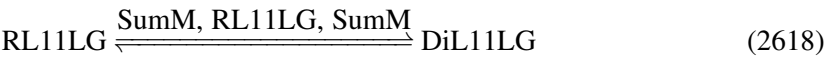
(2617)

7.1297 Reaction r1297

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11LG dimerizes to DiL11LG

Reaction equation



Reactant

Table 3894: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifiers

Table 3895: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL11LG	RL11LG	
SumM	SumM	

Product

Table 3896: Properties of each product.

Id	Name	SBO
DiL11LG	DiL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1297} = kbDIM \cdot [RL11LG] \cdot [SumM]$$

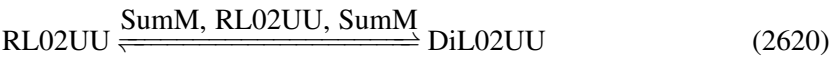
(2619)

7.1298 Reaction r1298

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL02UU dimerizes to DiL02UU

Reaction equation



Reactant

Table 3897: Properties of each reactant.

Id	Name	SBO
RL02UU	RL02UU	

Modifiers

Table 3898: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL02UU	RL02UU	
SumM	SumM	

Product

Table 3899: Properties of each product.

Id	Name	SBO
DiL02UU	DiL02UU	

Kinetic Law

Derived unit contains undeclared units

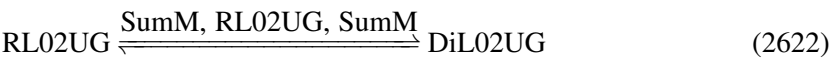
$$v_{1298} = kbDIM \cdot [RL02UU] \cdot [SumM] \tag{2621}$$

7.1299 Reaction r1299

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL02UG dimerizes to DiL02UG

Reaction equation



Reactant

Table 3900: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifiers

Table 3901: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL02UG	RL02UG	
SumM	SumM	

Product

Table 3902: Properties of each product.

Id	Name	SBO
DiL02UG	DiL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1299} = kbDIM \cdot [RL02UG] \cdot [SumM]$$

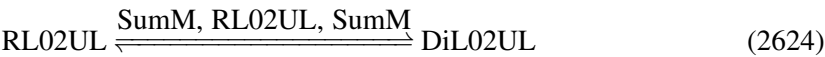
(2623)

7.1300 Reaction r1300

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL02UL dimerizes to DiL02UL

Reaction equation



Reactant

Table 3903: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifiers

Table 3904: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL02UL	RL02UL	
SumM	SumM	

Product

Table 3905: Properties of each product.

Id	Name	SBO
DiL02UL	DiL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1300} = k_{bDIM} \cdot [RL02UL] \cdot [SumM]$$

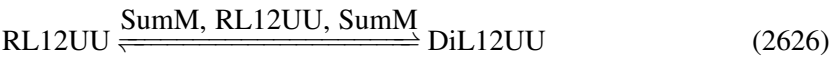
(2625)

7.1301 Reaction r1301

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12UU dimerizes to DiL12UU

Reaction equation



Reactant

Table 3906: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifiers

Table 3907: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12UU	RL12UU	
SumM	SumM	

Product

Table 3908: Properties of each product.

Id	Name	SBO
DiL12UU	DiL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1301} = k_{bDIM} \cdot [RL12UU] \cdot [SumM]$$

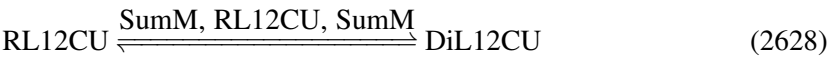
(2627)

7.1302 Reaction r1302

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12CU dimerizes to DiL12CU

Reaction equation



Reactant

Table 3909: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifiers

Table 3910: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12CU	RL12CU	
SumM	SumM	

Product

Table 3911: Properties of each product.

Id	Name	SBO
DiL12CU	DiL12CU	

Kinetic Law

Derived unit contains undeclared units

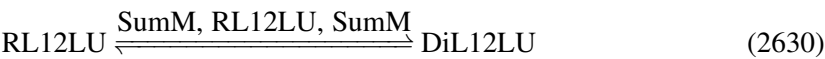
$$v_{1302} = k_{bDIM} \cdot [RL12CU] \cdot [SumM] \tag{2629}$$

7.1303 Reaction r1303

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12LU dimerizes to DiL12LU

Reaction equation



Reactant

Table 3912: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifiers

Table 3913: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12LU	RL12LU	
SumM	SumM	

Product

Table 3914: Properties of each product.

Id	Name	SBO
DiL12LU	DiL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1303} = k_{bDIM} \cdot [RL12LU] \cdot [SumM]$$

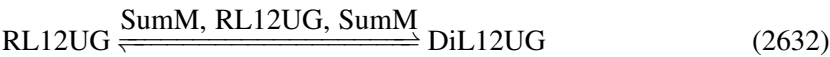
(2631)

7.1304 Reaction r1304

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12UG dimerizes to DiL12UG

Reaction equation



Reactant

Table 3915: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifiers

Table 3916: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12UG	RL12UG	
SumM	SumM	

Product

Table 3917: Properties of each product.

Id	Name	SBO
DiL12UG	DiL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1304} = kbDIM \cdot [RL12UG] \cdot [SumM]$$

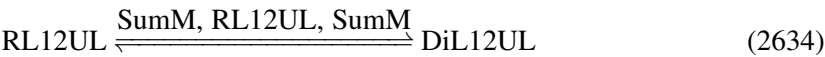
(2633)

7.1305 Reaction r1305

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12UL dimerizes to DiL12UL

Reaction equation



Reactant

Table 3918: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifiers

Table 3919: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12UL	RL12UL	
SumM	SumM	

Product

Table 3920: Properties of each product.

Id	Name	SBO
DiL12UL	DiL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1305} = k_{bDIM} \cdot [RL12UL] \cdot [SumM]$$

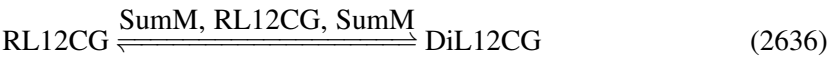
(2635)

7.1306 Reaction r1306

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12CG dimerizes to DiL12CG

Reaction equation



Reactant

Table 3921: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifiers

Table 3922: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12CG	RL12CG	
SumM	SumM	

Product

Table 3923: Properties of each product.

Id	Name	SBO
DiL12CG	DiL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1306} = kbDIM \cdot [RL12CG] \cdot [SumM]$$

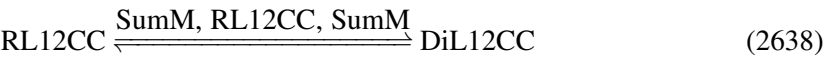
(2637)

7.1307 Reaction r1307

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12CC dimerizes to DiL12CC

Reaction equation



Reactant

Table 3924: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifiers

Table 3925: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12CC	RL12CC	
SumM	SumM	

Product

Table 3926: Properties of each product.

Id	Name	SBO
DiL12CC	DiL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1307} = k_{bDIM} \cdot [RL12CC] \cdot [SumM]$$

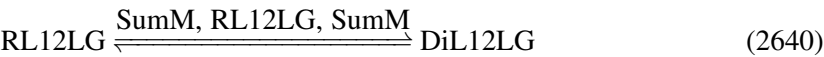
(2639)

7.1308 Reaction r1308

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12LG dimerizes to DiL12LG

Reaction equation



Reactant

Table 3927: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifiers

Table 3928: Properties of each modifier.

Id	Name	SBO
SumM	SumM	
RL12LG	RL12LG	
SumM	SumM	

Product

Table 3929: Properties of each product.

Id	Name	SBO
DiL12LG	DiL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1308} = kbDIM \cdot [RL12LG] \cdot [SumM]$$

(2641)

7.1309 Reaction r1309

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL00UU dimerizes to DaL00UU

Reaction equation



Reactant

Table 3930: Properties of each reactant.

Id	Name	SBO
RL00UU	RL00UU	

Modifiers

Table 3931: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL00UU	RL00UU	
SumML	SumML	

Product

Table 3932: Properties of each product.

Id	Name	SBO
DaL00UU	DaL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1309} = kbDIM \cdot [RL00UU] \cdot [SumML]$$

(2643)

7.1310 Reaction r1310

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL10UU dimerizes to DaL10UU

Reaction equation



Reactant

Table 3933: Properties of each reactant.

Id	Name	SBO
RL10UU	RL10UU	

Modifiers

Table 3934: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL10UU	RL10UU	
SumML	SumML	

Product

Table 3935: Properties of each product.

Id	Name	SBO
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1310} = kbDIM \cdot [RL10UU] \cdot [SumML]$$

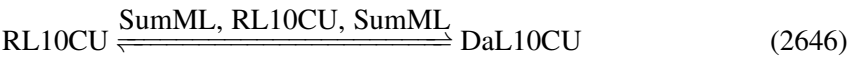
(2645)

7.1311 Reaction r1311

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL10CU dimerizes to DaL10CU

Reaction equation



Reactant

Table 3936: Properties of each reactant.

Id	Name	SBO
RL10CU	RL10CU	

Modifiers

Table 3937: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL10CU	RL10CU	
SumML	SumML	

Product

Table 3938: Properties of each product.

Id	Name	SBO
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1311} = kbDIM \cdot [RL10CU] \cdot [SumML]$$

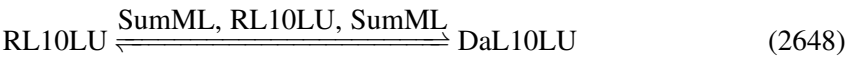
(2647)

7.1312 Reaction r1312

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL10LU dimerizes to DaL10LU

Reaction equation



Reactant

Table 3939: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifiers

Table 3940: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL10LU	RL10LU	
SumML	SumML	

Product

Table 3941: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1312} = kbDIM \cdot [RL10LU] \cdot [SumML]$$

(2649)

7.1313 Reaction r1313

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL01UU dimerizes to DaL01UU

Reaction equation



Reactant

Table 3942: Properties of each reactant.

Id	Name	SBO
RL01UU	RL01UU	

Modifiers

Table 3943: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL01UU	RL01UU	
SumML	SumML	

Product

Table 3944: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1313} = kbDIM \cdot [RL01UU] \cdot [SumML]$$

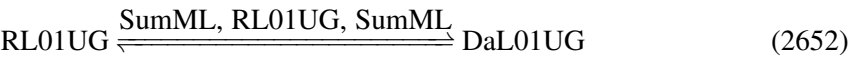
(2651)

7.1314 Reaction r1314

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL01UG dimerizes to DaL01UG

Reaction equation



Reactant

Table 3945: Properties of each reactant.

Id	Name	SBO
RL01UG	RL01UG	

Modifiers

Table 3946: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL01UG	RL01UG	
SumML	SumML	

Product

Table 3947: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1314} = kbDIM \cdot [RL01UG] \cdot [SumML]$$

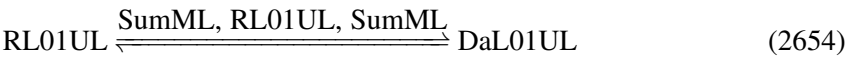
(2653)

7.1315 Reaction r1315

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL01UL dimerizes to DaL01UL

Reaction equation



Reactant

Table 3948: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifiers

Table 3949: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL01UL	RL01UL	
SumML	SumML	

Product

Table 3950: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1315} = kbDIM \cdot [RL01UL] \cdot [SumML]$$

(2655)

7.1316 Reaction r1316

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11UU dimerizes to DaL11UU

Reaction equation



Reactant

Table 3951: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifiers

Table 3952: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11UU	RL11UU	
SumML	SumML	

Product

Table 3953: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1316} = kbDIM \cdot [RL11UU] \cdot [SumML]$$

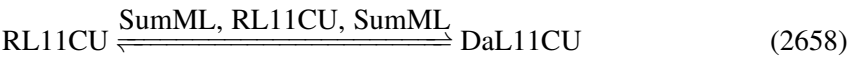
(2657)

7.1317 Reaction r1317

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11CU dimerizes to DaL11CU

Reaction equation



Reactant

Table 3954: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifiers

Table 3955: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11CU	RL11CU	
SumML	SumML	

Product

Table 3956: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1317} = kbDIM \cdot [RL11CU] \cdot [SumML]$$

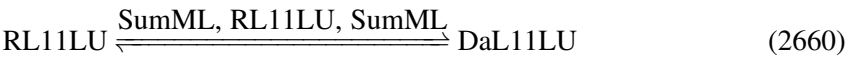
(2659)

7.1318 Reaction r1318

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11LU dimerizes to DaL11LU

Reaction equation



Reactant

Table 3957: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifiers

Table 3958: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11LU	RL11LU	
SumML	SumML	

Product

Table 3959: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1318} = kbDIM \cdot [RL11LU] \cdot [SumML]$$

(2661)

7.1319 Reaction r1319

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11UG dimerizes to DaL11UG

Reaction equation



Reactant

Table 3960: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifiers

Table 3961: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11UG	RL11UG	
SumML	SumML	

Product

Table 3962: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1319} = kbDIM \cdot [RL11UG] \cdot [SumML]$$

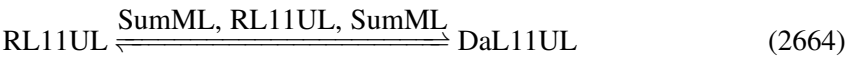
(2663)

7.1320 Reaction r1320

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11UL dimerizes to DaL11UL

Reaction equation



Reactant

Table 3963: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifiers

Table 3964: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11UL	RL11UL	
SumML	SumML	

Product

Table 3965: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1320} = kbDIM \cdot [RL11UL] \cdot [SumML]$$

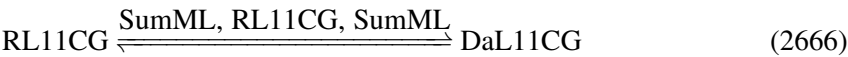
(2665)

7.1321 Reaction r1321

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11CG dimerizes to DaL11CG

Reaction equation



Reactant

Table 3966: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifiers

Table 3967: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11CG	RL11CG	
SumML	SumML	

Product

Table 3968: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1321} = kbDIM \cdot [RL11CG] \cdot [SumML]$$

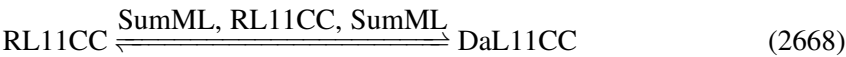
(2667)

7.1322 Reaction r1322

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11CC dimerizes to DaL11CC

Reaction equation



Reactant

Table 3969: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifiers

Table 3970: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11CC	RL11CC	
SumML	SumML	

Product

Table 3971: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1322} = kbDIM \cdot [RL11CC] \cdot [SumML]$$

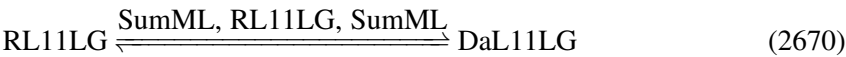
(2669)

7.1323 Reaction r1323

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL11LG dimerizes to DaL11LG

Reaction equation



Reactant

Table 3972: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifiers

Table 3973: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL11LG	RL11LG	
SumML	SumML	

Product

Table 3974: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

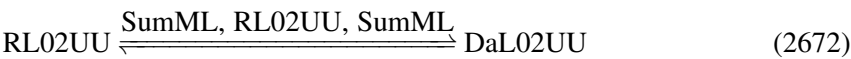
$$v_{1323} = kbDIM \cdot [RL11LG] \cdot [SumML] \tag{2671}$$

7.1324 Reaction r1324

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL02UU dimerizes to DaL02UU

Reaction equation



Reactant

Table 3975: Properties of each reactant.

Id	Name	SBO
RL02UU	RL02UU	

Modifiers

Table 3976: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL02UU	RL02UU	
SumML	SumML	

Product

Table 3977: Properties of each product.

Id	Name	SBO
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1324} = kbDIM \cdot [RL02UU] \cdot [SumML] \tag{2673}$$

7.1325 Reaction r1325

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL02UG dimerizes to DaL02UG

Reaction equation



Reactant

Table 3978: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifiers

Table 3979: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL02UG	RL02UG	
SumML	SumML	

Product

Table 3980: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1325} = kbDIM \cdot [RL02UG] \cdot [SumML]$$

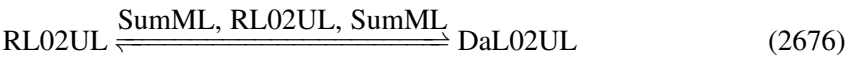
(2675)

7.1326 Reaction r1326

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL02UL dimerizes to DaL02UL

Reaction equation



Reactant

Table 3981: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifiers

Table 3982: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL02UL	RL02UL	
SumML	SumML	

Product

Table 3983: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1326} = kbDIM \cdot [RL02UL] \cdot [SumML]$$

(2677)

7.1327 Reaction r1327

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12UU dimerizes to DaL12UU

Reaction equation



Reactant

Table 3984: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifiers

Table 3985: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12UU	RL12UU	
SumML	SumML	

Product

Table 3986: Properties of each product.

Id	Name	SBO
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1327} = kbDIM \cdot [RL12UU] \cdot [SumML]$$

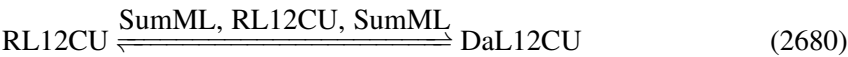
(2679)

7.1328 Reaction r1328

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12CU dimerizes to DaL12CU

Reaction equation



Reactant

Table 3987: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifiers

Table 3988: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12CU	RL12CU	
SumML	SumML	

Product

Table 3989: Properties of each product.

Id	Name	SBO
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1328} = kbDIM \cdot [RL12CU] \cdot [SumML]$$

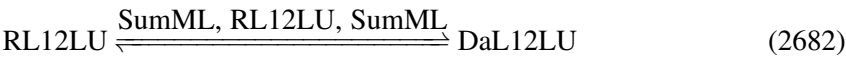
(2681)

7.1329 Reaction r1329

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12LU dimerizes to DaL12LU

Reaction equation



Reactant

Table 3990: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifiers

Table 3991: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12LU	RL12LU	
SumML	SumML	

Product

Table 3992: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1329} = kbDIM \cdot [RL12LU] \cdot [SumML]$$

(2683)

7.1330 Reaction r1330

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12UG dimerizes to DaL12UG

Reaction equation



Reactant

Table 3993: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifiers

Table 3994: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12UG	RL12UG	
SumML	SumML	

Product

Table 3995: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1330} = kbDIM \cdot [RL12UG] \cdot [SumML]$$

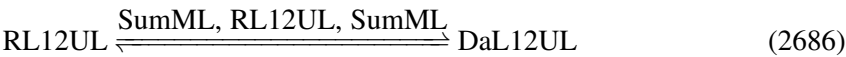
(2685)

7.1331 Reaction r1331

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12UL dimerizes to DaL12UL

Reaction equation



Reactant

Table 3996: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifiers

Table 3997: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12UL	RL12UL	
SumML	SumML	

Product

Table 3998: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1331} = k_{bDIM} \cdot [RL12UL] \cdot [SumML]$$

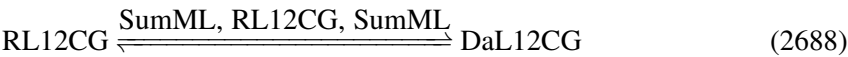
(2687)

7.1332 Reaction r1332

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12CG dimerizes to DaL12CG

Reaction equation



Reactant

Table 3999: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifiers

Table 4000: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12CG	RL12CG	
SumML	SumML	

Product

Table 4001: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1332} = kbDIM \cdot [RL12CG] \cdot [SumML]$$

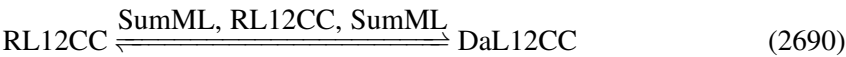
(2689)

7.1333 Reaction r1333

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12CC dimerizes to DaL12CC

Reaction equation



Reactant

Table 4002: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifiers

Table 4003: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12CC	RL12CC	
SumML	SumML	

Product

Table 4004: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1333} = kbDIM \cdot [RL12CC] \cdot [SumML]$$

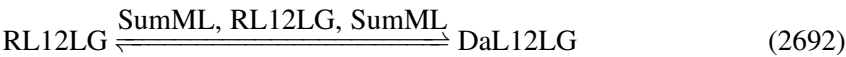
(2691)

7.1334 Reaction r1334

This is a reversible reaction of one reactant forming one product influenced by three modifiers.

Name RL12LG dimerizes to DaL12LG

Reaction equation



Reactant

Table 4005: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifiers

Table 4006: Properties of each modifier.

Id	Name	SBO
SumML	SumML	
RL12LG	RL12LG	
SumML	SumML	

Product

Table 4007: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1334} = kbDIM \cdot [RL12LG] \cdot [SumML] \tag{2693}$$

7.1335 Reaction r1335

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di00UU loses partner

Reaction equation



Reactant

Table 4008: Properties of each reactant.

Id	Name	SBO
Di00UU	Di00UU	

Modifier

Table 4009: Properties of each modifier.

Id	Name	SBO
Di00UU	Di00UU	

Product

Table 4010: Properties of each product.

Id	Name	SBO
R00UU	R00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1335} = k_{uDIM} \cdot [Di00UU]$$

(2695)

7.1336 Reaction r1336

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di10UU loses partner

Reaction equation



Reactant

Table 4011: Properties of each reactant.

Id	Name	SBO
Di10UU	Di10UU	

Modifier

Table 4012: Properties of each modifier.

Id	Name	SBO
Di10UU	Di10UU	

Product

Table 4013: Properties of each product.

Id	Name	SBO
R10UU	R10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1336} = kuDIM \cdot [Di10UU] \tag{2697}$$

7.1337 Reaction r1337

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di10CU loses partner

Reaction equation



Reactant

Table 4014: Properties of each reactant.

Id	Name	SBO
Di10CU	Di10CU	

Modifier

Table 4015: Properties of each modifier.

Id	Name	SBO
Di10CU	Di10CU	

Product

Table 4016: Properties of each product.

Id	Name	SBO
R10CU	R10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1337} = k_{uDIM} \cdot [Di10CU] \tag{2699}$$

7.1338 Reaction r1338

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di10LU loses partner

Reaction equation



Reactant

Table 4017: Properties of each reactant.

Id	Name	SBO
Di10LU	Di10LU	

Modifier

Table 4018: Properties of each modifier.

Id	Name	SBO
Di10LU	Di10LU	

Product

Table 4019: Properties of each product.

Id	Name	SBO
R10LU	R10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1338} = k_{uDIM} \cdot [Di10LU] \tag{2701}$$

7.1339 Reaction r1339

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di01UU loses partner

Reaction equation



Reactant

Table 4020: Properties of each reactant.

Id	Name	SBO
Di01UU	Di01UU	

Modifier

Table 4021: Properties of each modifier.

Id	Name	SBO
Di01UU	Di01UU	

Product

Table 4022: Properties of each product.

Id	Name	SBO
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1339} = k_{\text{uDIM}} \cdot [\text{Di01UU}] \tag{2703}$$

7.1340 Reaction r1340

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di01UG loses partner

Reaction equation



Reactant

Table 4023: Properties of each reactant.

Id	Name	SBO
Di01UG	Di01UG	

Modifier

Table 4024: Properties of each modifier.

Id	Name	SBO
Di01UG	Di01UG	

Product

Table 4025: Properties of each product.

Id	Name	SBO
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1340} = ku_{DIM} \cdot [Di01UG]$$

(2705)

7.1341 Reaction r1341

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di01UL loses partner

Reaction equation



Reactant

Table 4026: Properties of each reactant.

Id	Name	SBO
Di01UL	Di01UL	

Modifier

Table 4027: Properties of each modifier.

Id	Name	SBO
Di01UL	Di01UL	

Product

Table 4028: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1341} = ku_{DIM} \cdot [Di01UL]$$

(2707)

7.1342 Reaction r1342

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UU loses partner

Reaction equation



Reactant

Table 4029: Properties of each reactant.

Id	Name	SBO
Di11UU	Di11UU	

Modifier

Table 4030: Properties of each modifier.

Id	Name	SBO
Di11UU	Di11UU	

Product

Table 4031: Properties of each product.

Id	Name	SBO
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$v_{1342} = k_{uDIM} \cdot [\text{Di11UU}]$

(2709)

7.1343 Reaction r1343

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CU loses partner

Reaction equation



Reactant

Table 4032: Properties of each reactant.

Id	Name	SBO
Di11CU	Di11CU	

Modifier

Table 4033: Properties of each modifier.

Id	Name	SBO
Di11CU	Di11CU	

Product

Table 4034: Properties of each product.

Id	Name	SBO
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1343} = k_{\text{uDIM}} \cdot [\text{Di11CU}]$$

(2711)

7.1344 Reaction r1344

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11LU loses partner

Reaction equation



Reactant

Table 4035: Properties of each reactant.

Id	Name	SBO
Di11LU	Di11LU	

Modifier

Table 4036: Properties of each modifier.

Id	Name	SBO
Di11LU	Di11LU	

Product

Table 4037: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1344} = k_{uDIM} \cdot [Di11LU]$$

(2713)

7.1345 Reaction r1345

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UG loses partner

Reaction equation



Reactant

Table 4038: Properties of each reactant.

Id	Name	SBO
Di11UG	Di11UG	

Modifier

Table 4039: Properties of each modifier.

Id	Name	SBO
Di11UG	Di11UG	

Product

Table 4040: Properties of each product.

Id	Name	SBO
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1345} = k_{uDIM} \cdot [Di11UG] \tag{2715}$$

7.1346 Reaction r1346

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11UL loses partner

Reaction equation



Reactant

Table 4041: Properties of each reactant.

Id	Name	SBO
Di11UL	Di11UL	

Modifier

Table 4042: Properties of each modifier.

Id	Name	SBO
Di11UL	Di11UL	

Product

Table 4043: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1346} = k_{uDIM} \cdot [Di11UL] \tag{2717}$$

7.1347 Reaction r1347

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CG loses partner

Reaction equation



Reactant

Table 4044: Properties of each reactant.

Id	Name	SBO
Di11CG	Di11CG	

Modifier

Table 4045: Properties of each modifier.

Id	Name	SBO
Di11CG	Di11CG	

Product

Table 4046: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1347} = kuDIM \cdot [Di11CG] \tag{2719}$$

7.1348 Reaction r1348

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11CC loses partner

Reaction equation



Reactant

Table 4047: Properties of each reactant.

Id	Name	SBO
Di11CC	Di11CC	

Modifier

Table 4048: Properties of each modifier.

Id	Name	SBO
Di11CC	Di11CC	

Product

Table 4049: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law**Derived unit** contains undeclared units

$$v_{1348} = k_{\text{uDIM}} \cdot [\text{Di11CC}] \quad (2721)$$

7.1349 Reaction r1349

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di11LG loses partner**Reaction equation****Reactant**

Table 4050: Properties of each reactant.

Id	Name	SBO
Di11LG	Di11LG	

Modifier

Table 4051: Properties of each modifier.

Id	Name	SBO
Di11LG	Di11LG	

Product

Table 4052: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1349} = k_{uDIM} \cdot [Di11LG]$$

(2723)

7.1350 Reaction r1350

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di02UU loses partner

Reaction equation



Reactant

Table 4053: Properties of each reactant.

Id	Name	SBO
Di02UU	Di02UU	

Modifier

Table 4054: Properties of each modifier.

Id	Name	SBO
Di02UU	Di02UU	

Product

Table 4055: Properties of each product.

Id	Name	SBO
R02UU	R02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1350} = k_{uDIM} \cdot [Di02UU]$$

(2725)

7.1351 Reaction r1351

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di02UG loses partner

Reaction equation



Reactant

Table 4056: Properties of each reactant.

Id	Name	SBO
Di02UG	Di02UG	

Modifier

Table 4057: Properties of each modifier.

Id	Name	SBO
Di02UG	Di02UG	

Product

Table 4058: Properties of each product.

Id	Name	SBO
R02UG	R02UG	

Kinetic Law

Derived unit contains undeclared units

$v_{1351} = k_{uDIM} \cdot [\text{Di02UG}]$

(2727)

7.1352 Reaction r1352

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di02UL loses partner

Reaction equation



Reactant

Table 4059: Properties of each reactant.

Id	Name	SBO
Di02UL	Di02UL	

Modifier

Table 4060: Properties of each modifier.

Id	Name	SBO
Di02UL	Di02UL	

Product

Table 4061: Properties of each product.

Id	Name	SBO
R02UL	R02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1352} = k_{\text{uDIM}} \cdot [\text{Di02UL}]$$

(2729)

7.1353 Reaction r1353

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UU loses partner

Reaction equation



Reactant

Table 4062: Properties of each reactant.

Id	Name	SBO
Di12UU	Di12UU	

Modifier

Table 4063: Properties of each modifier.

Id	Name	SBO
Di12UU	Di12UU	

Product

Table 4064: Properties of each product.

Id	Name	SBO
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1353} = k_{uDIM} \cdot [Di12UU]$$

(2731)

7.1354 Reaction r1354

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CU loses partner

Reaction equation



Reactant

Table 4065: Properties of each reactant.

Id	Name	SBO
Di12CU	Di12CU	

Modifier

Table 4066: Properties of each modifier.

Id	Name	SBO
Di12CU	Di12CU	

Product

Table 4067: Properties of each product.

Id	Name	SBO
R12CU	R12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1354} = kuDIM \cdot [Di12CU] \tag{2733}$$

7.1355 Reaction r1355

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12LU loses partner

Reaction equation



Reactant

Table 4068: Properties of each reactant.

Id	Name	SBO
Di12LU	Di12LU	

Modifier

Table 4069: Properties of each modifier.

Id	Name	SBO
Di12LU	Di12LU	

Product

Table 4070: Properties of each product.

Id	Name	SBO
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1355} = k_{uDIM} \cdot [Di12LU] \tag{2735}$$

7.1356 Reaction r1356

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UG loses partner

Reaction equation



Reactant

Table 4071: Properties of each reactant.

Id	Name	SBO
Di12UG	Di12UG	

Modifier

Table 4072: Properties of each modifier.

Id	Name	SBO
Di12UG	Di12UG	

Product

Table 4073: Properties of each product.

Id	Name	SBO
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1356} = k_{uDIM} \cdot [Di12UG] \tag{2737}$$

7.1357 Reaction r1357

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12UL loses partner

Reaction equation



Reactant

Table 4074: Properties of each reactant.

Id	Name	SBO
Di12UL	Di12UL	

Modifier

Table 4075: Properties of each modifier.

Id	Name	SBO
Di12UL	Di12UL	

Product

Table 4076: Properties of each product.

Id	Name	SBO
R12UL	R12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1357} = k_{\text{uDIM}} \cdot [\text{Di12UL}] \quad (2739)$$

7.1358 Reaction r1358

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CG loses partner

Reaction equation**Reactant**

Table 4077: Properties of each reactant.

Id	Name	SBO
Di12CG	Di12CG	

Modifier

Table 4078: Properties of each modifier.

Id	Name	SBO
Di12CG	Di12CG	

Product

Table 4079: Properties of each product.

Id	Name	SBO
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1358} = ku_{DIM} \cdot [Di12CG] \tag{2741}$$

7.1359 Reaction r1359

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12CC loses partner

Reaction equation



Reactant

Table 4080: Properties of each reactant.

Id	Name	SBO
Di12CC	Di12CC	

Modifier

Table 4081: Properties of each modifier.

Id	Name	SBO
Di12CC	Di12CC	

Product

Table 4082: Properties of each product.

Id	Name	SBO
R12CC	R12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1359} = ku_{DIM} \cdot [Di12CC] \tag{2743}$$

7.1360 Reaction r1360

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Di12LG loses partner

Reaction equation



Reactant

Table 4083: Properties of each reactant.

Id	Name	SBO
Di12LG	Di12LG	

Modifier

Table 4084: Properties of each modifier.

Id	Name	SBO
Di12LG	Di12LG	

Product

Table 4085: Properties of each product.

Id	Name	SBO
R12LG	R12LG	

Kinetic Law

Derived unit contains undeclared units

$v_{1360} = k_{uDIM} \cdot [\text{Di12LG}]$

(2745)

7.1361 Reaction r1361

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL00UU loses partner

Reaction equation



Reactant

Table 4086: Properties of each reactant.

Id	Name	SBO
DiL00UU	DiL00UU	

Modifier

Table 4087: Properties of each modifier.

Id	Name	SBO
DiL00UU	DiL00UU	

Product

Table 4088: Properties of each product.

Id	Name	SBO
RL00UU	RL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1361} = k_{\text{uDIM}} \cdot [\text{DiL00UU}]$$

(2747)

7.1362 Reaction r1362

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL10UU loses partner

Reaction equation



Reactant

Table 4089: Properties of each reactant.

Id	Name	SBO
DiL10UU	DiL10UU	

Modifier

Table 4090: Properties of each modifier.

Id	Name	SBO
DiL10UU	DiL10UU	

Product

Table 4091: Properties of each product.

Id	Name	SBO
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1362} = k_{uDIM} \cdot [DiL10UU]$$

(2749)

7.1363 Reaction r1363

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL10CU loses partner

Reaction equation



Reactant

Table 4092: Properties of each reactant.

Id	Name	SBO
DiL10CU	DiL10CU	

Modifier

Table 4093: Properties of each modifier.

Id	Name	SBO
DiL10CU	DiL10CU	

Product

Table 4094: Properties of each product.

Id	Name	SBO
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1363} = k_{uDIM} \cdot [DiL10CU] \tag{2751}$$

7.1364 Reaction r1364

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL10LU loses partner

Reaction equation



Reactant

Table 4095: Properties of each reactant.

Id	Name	SBO
DiL10LU	DiL10LU	

Modifier

Table 4096: Properties of each modifier.

Id	Name	SBO
DiL10LU	DiL10LU	

Product

Table 4097: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1364} = k_{uDIM} \cdot [DiL10LU] \tag{2753}$$

7.1365 Reaction r1365

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL01UU loses partner

Reaction equation



Reactant

Table 4098: Properties of each reactant.

Id	Name	SBO
DiL01UU	DiL01UU	

Modifier

Table 4099: Properties of each modifier.

Id	Name	SBO
DiL01UU	DiL01UU	

Product

Table 4100: Properties of each product.

Id	Name	SBO
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1365} = k_{uDIM} \cdot [DiL01UU] \tag{2755}$$

7.1366 Reaction r1366

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL01UG loses partner

Reaction equation



Reactant

Table 4101: Properties of each reactant.

Id	Name	SBO
DiL01UG	DiL01UG	

Modifier

Table 4102: Properties of each modifier.

Id	Name	SBO
DiL01UG	DiL01UG	

Product

Table 4103: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1366} = k_{\text{uDIM}} \cdot [\text{DiL01UG}] \quad (2757)$$

7.1367 Reaction r1367

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL01UL loses partner

Reaction equation**Reactant**

Table 4104: Properties of each reactant.

Id	Name	SBO
DiL01UL	DiL01UL	

Modifier

Table 4105: Properties of each modifier.

Id	Name	SBO
DiL01UL	DiL01UL	

Product

Table 4106: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1367} = ku_{DIM} \cdot [DiL01UL]$$

(2759)

7.1368 Reaction r1368

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UU loses partner

Reaction equation



Reactant

Table 4107: Properties of each reactant.

Id	Name	SBO
DiL11UU	DiL11UU	

Modifier

Table 4108: Properties of each modifier.

Id	Name	SBO
DiL11UU	DiL11UU	

Product

Table 4109: Properties of each product.

Id	Name	SBO
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1368} = ku_{DIM} \cdot [DiL11UU]$$

(2761)

7.1369 Reaction r1369

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CU loses partner

Reaction equation



Reactant

Table 4110: Properties of each reactant.

Id	Name	SBO
DiL11CU	DiL11CU	

Modifier

Table 4111: Properties of each modifier.

Id	Name	SBO
DiL11CU	DiL11CU	

Product

Table 4112: Properties of each product.

Id	Name	SBO
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1369} = k_{uDIM} \cdot [\text{DiL11CU}]$$

(2763)

7.1370 Reaction r1370

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11LU loses partner

Reaction equation



Reactant

Table 4113: Properties of each reactant.

Id	Name	SBO
DiL11LU	DiL11LU	

Modifier

Table 4114: Properties of each modifier.

Id	Name	SBO
DiL11LU	DiL11LU	

Product

Table 4115: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1370} = \text{kuDIM} \cdot [\text{DiL11LU}]$$

(2765)

7.1371 Reaction r1371

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UG loses partner

Reaction equation



Reactant

Table 4116: Properties of each reactant.

Id	Name	SBO
DiL11UG	DiL11UG	

Modifier

Table 4117: Properties of each modifier.

Id	Name	SBO
DiL11UG	DiL11UG	

Product

Table 4118: Properties of each product.

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1371} = k_{uDIM} \cdot [DiL11UG]$$

(2767)

7.1372 Reaction r1372

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11UL loses partner

Reaction equation



Reactant

Table 4119: Properties of each reactant.

Id	Name	SBO
DiL11UL	DiL11UL	

Modifier

Table 4120: Properties of each modifier.

Id	Name	SBO
DiL11UL	DiL11UL	

Product

Table 4121: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1372} = k_{uDIM} \cdot [DiL11UL] \tag{2769}$$

7.1373 Reaction r1373

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CG loses partner

Reaction equation



Reactant

Table 4122: Properties of each reactant.

Id	Name	SBO
DiL11CG	DiL11CG	

Modifier

Table 4123: Properties of each modifier.

Id	Name	SBO
DiL11CG	DiL11CG	

Product

Table 4124: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1373} = k_{uDIM} \cdot [DiL11CG] \tag{2771}$$

7.1374 Reaction r1374

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11CC loses partner

Reaction equation



Reactant

Table 4125: Properties of each reactant.

Id	Name	SBO
DiL11CC	DiL11CC	

Modifier

Table 4126: Properties of each modifier.

Id	Name	SBO
DiL11CC	DiL11CC	

Product

Table 4127: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1374} = k_{\text{uDIM}} \cdot [\text{DiL11CC}] \tag{2773}$$

7.1375 Reaction r1375

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL11LG loses partner

Reaction equation



Reactant

Table 4128: Properties of each reactant.

Id	Name	SBO
DiL11LG	DiL11LG	

Modifier

Table 4129: Properties of each modifier.

Id	Name	SBO
DiL11LG	DiL11LG	

Product

Table 4130: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1375} = k_{\text{uDIM}} \cdot [\text{DiL11LG}] \quad (2775)$$

7.1376 Reaction r1376

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL02UU loses partner

Reaction equation**Reactant**

Table 4131: Properties of each reactant.

Id	Name	SBO
DiL02UU	DiL02UU	

Modifier

Table 4132: Properties of each modifier.

Id	Name	SBO
DiL02UU	DiL02UU	

Product

Table 4133: Properties of each product.

Id	Name	SBO
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1376} = k_{uDIM} \cdot [DiL02UU]$$

(2777)

7.1377 Reaction r1377

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL02UG loses partner

Reaction equation



Reactant

Table 4134: Properties of each reactant.

Id	Name	SBO
DiL02UG	DiL02UG	

Modifier

Table 4135: Properties of each modifier.

Id	Name	SBO
DiL02UG	DiL02UG	

Product

Table 4136: Properties of each product.

Id	Name	SBO
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1377} = k_{uDIM} \cdot [DiL02UG]$$

(2779)

7.1378 Reaction r1378

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL02UL loses partner

Reaction equation



Reactant

Table 4137: Properties of each reactant.

Id	Name	SBO
DiL02UL	DiL02UL	

Modifier

Table 4138: Properties of each modifier.

Id	Name	SBO
DiL02UL	DiL02UL	

Product

Table 4139: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$v_{1378} = k_{uDIM} \cdot [\text{DiL02UL}]$

(2781)

7.1379 Reaction r1379

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UU loses partner

Reaction equation



Reactant

Table 4140: Properties of each reactant.

Id	Name	SBO
DiL12UU	DiL12UU	

Modifier

Table 4141: Properties of each modifier.

Id	Name	SBO
DiL12UU	DiL12UU	

Product

Table 4142: Properties of each product.

Id	Name	SBO
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1379} = k_{\text{uDIM}} \cdot [\text{DiL12UU}]$$

(2783)

7.1380 Reaction r1380

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CU loses partner

Reaction equation



Reactant

Table 4143: Properties of each reactant.

Id	Name	SBO
DiL12CU	DiL12CU	

Modifier

Table 4144: Properties of each modifier.

Id	Name	SBO
DiL12CU	DiL12CU	

Product

Table 4145: Properties of each product.

Id	Name	SBO
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1380} = k_{uDIM} \cdot [DiL12CU] \tag{2785}$$

7.1381 Reaction r1381

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12LU loses partner

Reaction equation



Reactant

Table 4146: Properties of each reactant.

Id	Name	SBO
DiL12LU	DiL12LU	

Modifier

Table 4147: Properties of each modifier.

Id	Name	SBO
DiL12LU	DiL12LU	

Product

Table 4148: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1381} = k_{uDIM} \cdot [DiL12LU] \tag{2787}$$

7.1382 Reaction r1382

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UG loses partner

Reaction equation



Reactant

Table 4149: Properties of each reactant.

Id	Name	SBO
DiL12UG	DiL12UG	

Modifier

Table 4150: Properties of each modifier.

Id	Name	SBO
DiL12UG	DiL12UG	

Product

Table 4151: Properties of each product.

Id	Name	SBO
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1382} = k_{uDIM} \cdot [DiL12UG] \tag{2789}$$

7.1383 Reaction r1383

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12UL loses partner

Reaction equation



Reactant

Table 4152: Properties of each reactant.

Id	Name	SBO
DiL12UL	DiL12UL	

Modifier

Table 4153: Properties of each modifier.

Id	Name	SBO
DiL12UL	DiL12UL	

Product

Table 4154: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1383} = k_{uDIM} \cdot [DiL12UL] \tag{2791}$$

7.1384 Reaction r1384

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CG loses partner

Reaction equation



Reactant

Table 4155: Properties of each reactant.

Id	Name	SBO
DiL12CG	DiL12CG	

Modifier

Table 4156: Properties of each modifier.

Id	Name	SBO
DiL12CG	DiL12CG	

Product

Table 4157: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1384} = k_{\text{uDIM}} \cdot [\text{DiL12CG}] \quad (2793)$$

7.1385 Reaction r1385

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12CC loses partner

Reaction equation**Reactant**

Table 4158: Properties of each reactant.

Id	Name	SBO
DiL12CC	DiL12CC	

Modifier

Table 4159: Properties of each modifier.

Id	Name	SBO
DiL12CC	DiL12CC	

Product

Table 4160: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1385} = ku_{DIM} \cdot [DiL12CC]$$

(2795)

7.1386 Reaction r1386

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DiL12LG loses partner

Reaction equation



Reactant

Table 4161: Properties of each reactant.

Id	Name	SBO
DiL12LG	DiL12LG	

Modifier

Table 4162: Properties of each modifier.

Id	Name	SBO
DiL12LG	DiL12LG	

Product

Table 4163: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1386} = ku_{DIM} \cdot [DiL12LG]$$

(2797)

7.1387 Reaction r1387

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da00UU loses partner

Reaction equation



Reactant

Table 4164: Properties of each reactant.

Id	Name	SBO
Da00UU	Da00UU	

Modifier

Table 4165: Properties of each modifier.

Id	Name	SBO
Da00UU	Da00UU	

Product

Table 4166: Properties of each product.

Id	Name	SBO
R00UU	R00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1387} = k_{uDIM} \cdot [\text{Da00UU}]$$

(2799)

7.1388 Reaction r1388

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10UU loses partner

Reaction equation



Reactant

Table 4167: Properties of each reactant.

Id	Name	SBO
Da10UU	Da10UU	

Modifier

Table 4168: Properties of each modifier.

Id	Name	SBO
Da10UU	Da10UU	

Product

Table 4169: Properties of each product.

Id	Name	SBO
R10UU	R10UU	

Kinetic Law

Derived unit contains undeclared units

$v_{1388} = k_{\text{uDIM}} \cdot [\text{Da10UU}]$

(2801)

7.1389 Reaction r1389

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10CU loses partner

Reaction equation



Reactant

Table 4170: Properties of each reactant.

Id	Name	SBO
Da10CU	Da10CU	

Modifier

Table 4171: Properties of each modifier.

Id	Name	SBO
Da10CU	Da10CU	

Product

Table 4172: Properties of each product.

Id	Name	SBO
R10CU	R10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1389} = k_{uDIM} \cdot [Da10CU]$$

(2803)

7.1390 Reaction r1390

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da10LU loses partner

Reaction equation



Reactant

Table 4173: Properties of each reactant.

Id	Name	SBO
Da10LU	Da10LU	

Modifier

Table 4174: Properties of each modifier.

Id	Name	SBO
Da10LU	Da10LU	

Product

Table 4175: Properties of each product.

Id	Name	SBO
R10LU	R10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1390} = k_{uDIM} \cdot [Da10LU] \tag{2805}$$

7.1391 Reaction r1391

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UU loses partner

Reaction equation



Reactant

Table 4176: Properties of each reactant.

Id	Name	SBO
Da01UU	Da01UU	

Modifier

Table 4177: Properties of each modifier.

Id	Name	SBO
Da01UU	Da01UU	

Product

Table 4178: Properties of each product.

Id	Name	SBO
R01UU	R01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1391} = k_{uDIM} \cdot [Da01UU] \tag{2807}$$

7.1392 Reaction r1392

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UG loses partner

Reaction equation



Reactant

Table 4179: Properties of each reactant.

Id	Name	SBO
Da01UG	Da01UG	

Modifier

Table 4180: Properties of each modifier.

Id	Name	SBO
Da01UG	Da01UG	

Product

Table 4181: Properties of each product.

Id	Name	SBO
R01UG	R01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1392} = k_{uDIM} \cdot [Da01UG] \tag{2809}$$

7.1393 Reaction r1393

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da01UL loses partner

Reaction equation



Reactant

Table 4182: Properties of each reactant.

Id	Name	SBO
Da01UL	Da01UL	

Modifier

Table 4183: Properties of each modifier.

Id	Name	SBO
Da01UL	Da01UL	

Product

Table 4184: Properties of each product.

Id	Name	SBO
R01UL	R01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1393} = k_{\text{uDIM}} \cdot [\text{Da01UL}] \quad (2811)$$

7.1394 Reaction r1394

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UU loses partner

Reaction equation**Reactant**

Table 4185: Properties of each reactant.

Id	Name	SBO
Da11UU	Da11UU	

Modifier

Table 4186: Properties of each modifier.

Id	Name	SBO
Da11UU	Da11UU	

Product

Table 4187: Properties of each product.

Id	Name	SBO
R11UU	R11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1394} = \text{kuDIM} \cdot [\text{Da11UU}]$$

(2813)

7.1395 Reaction r1395

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CU loses partner

Reaction equation



Reactant

Table 4188: Properties of each reactant.

Id	Name	SBO
Da11CU	Da11CU	

Modifier

Table 4189: Properties of each modifier.

Id	Name	SBO
Da11CU	Da11CU	

Product

Table 4190: Properties of each product.

Id	Name	SBO
R11CU	R11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1395} = \text{kuDIM} \cdot [\text{Da11CU}]$$

(2815)

7.1396 Reaction r1396

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LU loses partner

Reaction equation



Reactant

Table 4191: Properties of each reactant.

Id	Name	SBO
Da11LU	Da11LU	

Modifier

Table 4192: Properties of each modifier.

Id	Name	SBO
Da11LU	Da11LU	

Product

Table 4193: Properties of each product.

Id	Name	SBO
R11LU	R11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1396} = k_{\text{uDIM}} \cdot [\text{Da11LU}]$$

(2817)

7.1397 Reaction r1397

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UG loses partner

Reaction equation



Reactant

Table 4194: Properties of each reactant.

Id	Name	SBO
Da11UG	Da11UG	

Modifier

Table 4195: Properties of each modifier.

Id	Name	SBO
Da11UG	Da11UG	

Product

Table 4196: Properties of each product.

Id	Name	SBO
R11UG	R11UG	

Kinetic Law

Derived unit contains undeclared units

$v_{1397} = k_{\text{uDIM}} \cdot [\text{Da11UG}]$

(2819)

7.1398 Reaction r1398

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11UL loses partner

Reaction equation



Reactant

Table 4197: Properties of each reactant.

Id	Name	SBO
Da11UL	Da11UL	

Modifier

Table 4198: Properties of each modifier.

Id	Name	SBO
Da11UL	Da11UL	

Product

Table 4199: Properties of each product.

Id	Name	SBO
R11UL	R11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1398} = k_{uDIM} \cdot [Da11UL]$$

(2821)

7.1399 Reaction r1399

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CG loses partner

Reaction equation



Reactant

Table 4200: Properties of each reactant.

Id	Name	SBO
Da11CG	Da11CG	

Modifier

Table 4201: Properties of each modifier.

Id	Name	SBO
Da11CG	Da11CG	

Product

Table 4202: Properties of each product.

Id	Name	SBO
R11CG	R11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1399} = k_{\text{uDIM}} \cdot [\text{Da11CG}] \tag{2823}$$

7.1400 Reaction r1400

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11CC loses partner

Reaction equation



Reactant

Table 4203: Properties of each reactant.

Id	Name	SBO
Da11CC	Da11CC	

Modifier

Table 4204: Properties of each modifier.

Id	Name	SBO
Da11CC	Da11CC	

Product

Table 4205: Properties of each product.

Id	Name	SBO
R11CC	R11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1400} = k_{uDIM} \cdot [Da11CC]$$

(2825)

7.1401 Reaction r1401

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da11LG loses partner

Reaction equation



Reactant

Table 4206: Properties of each reactant.

Id	Name	SBO
Da11LG	Da11LG	

Modifier

Table 4207: Properties of each modifier.

Id	Name	SBO
Da11LG	Da11LG	

Product

Table 4208: Properties of each product.

Id	Name	SBO
R11LG	R11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1401} = kuDIM \cdot [Da11LG] \tag{2827}$$

7.1402 Reaction r1402

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UU loses partner

Reaction equation



Reactant

Table 4209: Properties of each reactant.

Id	Name	SBO
Da02UU	Da02UU	

Modifier

Table 4210: Properties of each modifier.

Id	Name	SBO
Da02UU	Da02UU	

Product

Table 4211: Properties of each product.

Id	Name	SBO
R02UU	R02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1402} = k_{\text{uDIM}} \cdot [\text{Da02UU}] \quad (2829)$$

7.1403 Reaction r1403

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UG loses partner

Reaction equation**Reactant**

Table 4212: Properties of each reactant.

Id	Name	SBO
Da02UG	Da02UG	

Modifier

Table 4213: Properties of each modifier.

Id	Name	SBO
Da02UG	Da02UG	

Product

Table 4214: Properties of each product.

Id	Name	SBO
R02UG	R02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1403} = k_{uDIM} \cdot [Da02UG]$$

(2831)

7.1404 Reaction r1404

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da02UL loses partner

Reaction equation



Reactant

Table 4215: Properties of each reactant.

Id	Name	SBO
Da02UL	Da02UL	

Modifier

Table 4216: Properties of each modifier.

Id	Name	SBO
Da02UL	Da02UL	

Product

Table 4217: Properties of each product.

Id	Name	SBO
R02UL	R02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1404} = k_{uDIM} \cdot [Da02UL]$$

(2833)

7.1405 Reaction r1405

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UU loses partner

Reaction equation



Reactant

Table 4218: Properties of each reactant.

Id	Name	SBO
Da12UU	Da12UU	

Modifier

Table 4219: Properties of each modifier.

Id	Name	SBO
Da12UU	Da12UU	

Product

Table 4220: Properties of each product.

Id	Name	SBO
R12UU	R12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1405} = k_{uDIM} \cdot [Da12UU]$$

(2835)

7.1406 Reaction r1406

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CU loses partner

Reaction equation



Reactant

Table 4221: Properties of each reactant.

Id	Name	SBO
Da12CU	Da12CU	

Modifier

Table 4222: Properties of each modifier.

Id	Name	SBO
Da12CU	Da12CU	

Product

Table 4223: Properties of each product.

Id	Name	SBO
R12CU	R12CU	

Kinetic Law

Derived unit contains undeclared units

$v_{1406} = k_{\text{uDIM}} \cdot [\text{Da12CU}]$

(2837)

7.1407 Reaction r1407

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LU loses partner

Reaction equation



Reactant

Table 4224: Properties of each reactant.

Id	Name	SBO
Da12LU	Da12LU	

Modifier

Table 4225: Properties of each modifier.

Id	Name	SBO
Da12LU	Da12LU	

Product

Table 4226: Properties of each product.

Id	Name	SBO
R12LU	R12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1407} = k_{uDIM} \cdot [Da12LU]$$

(2839)

7.1408 Reaction r1408

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UG loses partner

Reaction equation



Reactant

Table 4227: Properties of each reactant.

Id	Name	SBO
Da12UG	Da12UG	

Modifier

Table 4228: Properties of each modifier.

Id	Name	SBO
Da12UG	Da12UG	

Product

Table 4229: Properties of each product.

Id	Name	SBO
R12UG	R12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1408} = k_{uDIM} \cdot [Da12UG] \tag{2841}$$

7.1409 Reaction r1409

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12UL loses partner

Reaction equation



Reactant

Table 4230: Properties of each reactant.

Id	Name	SBO
Da12UL	Da12UL	

Modifier

Table 4231: Properties of each modifier.

Id	Name	SBO
Da12UL	Da12UL	

Product

Table 4232: Properties of each product.

Id	Name	SBO
R12UL	R12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1409} = k_{uDIM} \cdot [Da12UL]$$

(2843)

7.1410 Reaction r1410

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CG loses partner

Reaction equation



Reactant

Table 4233: Properties of each reactant.

Id	Name	SBO
Da12CG	Da12CG	

Modifier

Table 4234: Properties of each modifier.

Id	Name	SBO
Da12CG	Da12CG	

Product

Table 4235: Properties of each product.

Id	Name	SBO
R12CG	R12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1410} = k_{uDIM} \cdot [Da12CG] \tag{2845}$$

7.1411 Reaction r1411

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12CC loses partner

Reaction equation



Reactant

Table 4236: Properties of each reactant.

Id	Name	SBO
Da12CC	Da12CC	

Modifier

Table 4237: Properties of each modifier.

Id	Name	SBO
Da12CC	Da12CC	

Product

Table 4238: Properties of each product.

Id	Name	SBO
R12CC	R12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1411} = k_{\text{uDIM}} \cdot [\text{Da12CC}] \quad (2847)$$

7.1412 Reaction r1412

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name Da12LG loses partner

Reaction equation



Reactant

Table 4239: Properties of each reactant.

Id	Name	SBO
Da12LG	Da12LG	

Modifier

Table 4240: Properties of each modifier.

Id	Name	SBO
Da12LG	Da12LG	

Product

Table 4241: Properties of each product.

Id	Name	SBO
R12LG	R12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1412} = \text{kuDIM} \cdot [\text{Da12LG}]$$

(2849)

7.1413 Reaction r1413

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL00UU loses partner

Reaction equation



Reactant

Table 4242: Properties of each reactant.

Id	Name	SBO
DaL00UU	DaL00UU	

Modifier

Table 4243: Properties of each modifier.

Id	Name	SBO
DaL00UU	DaL00UU	

Product

Table 4244: Properties of each product.

Id	Name	SBO
RL00UU	RL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1413} = \text{kuDIM} \cdot [\text{DaL00UU}]$$

(2851)

7.1414 Reaction r1414

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10UU loses partner

Reaction equation



Reactant

Table 4245: Properties of each reactant.

Id	Name	SBO
DaL10UU	DaL10UU	

Modifier

Table 4246: Properties of each modifier.

Id	Name	SBO
DaL10UU	DaL10UU	

Product

Table 4247: Properties of each product.

Id	Name	SBO
RL10UU	RL10UU	

Kinetic Law

Derived unit contains undeclared units

$v_{1414} = k_{uDIM} \cdot [\text{DaL10UU}]$

(2853)

7.1415 Reaction r1415

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10CU loses partner

Reaction equation



Reactant

Table 4248: Properties of each reactant.

Id	Name	SBO
DaL10CU	DaL10CU	

Modifier

Table 4249: Properties of each modifier.

Id	Name	SBO
DaL10CU	DaL10CU	

Product

Table 4250: Properties of each product.

Id	Name	SBO
RL10CU	RL10CU	

Kinetic Law

Derived unit contains undeclared units

$v_{1415} = \text{kuDIM} \cdot [\text{DaL10CU}]$

(2855)

7.1416 Reaction r1416

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL10LU loses partner

Reaction equation



Reactant

Table 4251: Properties of each reactant.

Id	Name	SBO
DaL10LU	DaL10LU	

Modifier

Table 4252: Properties of each modifier.

Id	Name	SBO
DaL10LU	DaL10LU	

Product

Table 4253: Properties of each product.

Id	Name	SBO
RL10LU	RL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1416} = k_{uDIM} \cdot [DaL10LU]$$

(2857)

7.1417 Reaction r1417

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UU loses partner

Reaction equation



Reactant

Table 4254: Properties of each reactant.

Id	Name	SBO
DaL01UU	DaL01UU	

Modifier

Table 4255: Properties of each modifier.

Id	Name	SBO
DaL01UU	DaL01UU	

Product

Table 4256: Properties of each product.

Id	Name	SBO
RL01UU	RL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1417} = k_{uDIM} \cdot [DaL01UU] \tag{2859}$$

7.1418 Reaction r1418

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UG loses partner

Reaction equation



Reactant

Table 4257: Properties of each reactant.

Id	Name	SBO
DaL01UG	DaL01UG	

Modifier

Table 4258: Properties of each modifier.

Id	Name	SBO
DaL01UG	DaL01UG	

Product

Table 4259: Properties of each product.

Id	Name	SBO
RL01UG	RL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1418} = k_{uDIM} \cdot [DaL01UG] \tag{2861}$$

7.1419 Reaction r1419

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL01UL loses partner

Reaction equation



Reactant

Table 4260: Properties of each reactant.

Id	Name	SBO
DaL01UL	DaL01UL	

Modifier

Table 4261: Properties of each modifier.

Id	Name	SBO
DaL01UL	DaL01UL	

Product

Table 4262: Properties of each product.

Id	Name	SBO
RL01UL	RL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1419} = k_{uDIM} \cdot [DaL01UL] \tag{2863}$$

7.1420 Reaction r1420

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UU loses partner

Reaction equation



Reactant

Table 4263: Properties of each reactant.

Id	Name	SBO
DaL11UU	DaL11UU	

Modifier

Table 4264: Properties of each modifier.

Id	Name	SBO
DaL11UU	DaL11UU	

Product

Table 4265: Properties of each product.

Id	Name	SBO
RL11UU	RL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1420} = k_{\text{uDIM}} \cdot [\text{DaL11UU}] \quad (2865)$$

7.1421 Reaction r1421

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CU loses partner

Reaction equation**Reactant**

Table 4266: Properties of each reactant.

Id	Name	SBO
DaL11CU	DaL11CU	

Modifier

Table 4267: Properties of each modifier.

Id	Name	SBO
DaL11CU	DaL11CU	

Product

Table 4268: Properties of each product.

Id	Name	SBO
RL11CU	RL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1421} = k_{uDIM} \cdot [DaL11CU]$$

(2867)

7.1422 Reaction r1422

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LU loses partner

Reaction equation



Reactant

Table 4269: Properties of each reactant.

Id	Name	SBO
DaL11LU	DaL11LU	

Modifier

Table 4270: Properties of each modifier.

Id	Name	SBO
DaL11LU	DaL11LU	

Product

Table 4271: Properties of each product.

Id	Name	SBO
RL11LU	RL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1422} = k_{uDIM} \cdot [DaL11LU]$$

(2869)

7.1423 Reaction r1423

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UG loses partner

Reaction equation



Reactant

Table 4272: Properties of each reactant.

Id	Name	SBO
DaL11UG	DaL11UG	

Modifier

Table 4273: Properties of each modifier.

Id	Name	SBO
DaL11UG	DaL11UG	

Product

Table 4274: Properties of each product.

Id	Name	SBO
RL11UG	RL11UG	

Kinetic Law

Derived unit contains undeclared units

$v_{1423} = k_{uDIM} \cdot [\text{DaL11UG}]$

(2871)

7.1424 Reaction r1424

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11UL loses partner

Reaction equation



Reactant

Table 4275: Properties of each reactant.

Id	Name	SBO
DaL11UL	DaL11UL	

Modifier

Table 4276: Properties of each modifier.

Id	Name	SBO
DaL11UL	DaL11UL	

Product

Table 4277: Properties of each product.

Id	Name	SBO
RL11UL	RL11UL	

Kinetic Law

Derived unit contains undeclared units

$v_{1424} = \text{kuDIM} \cdot [\text{DaL11UL}]$

(2873)

7.1425 Reaction r1425

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CG loses partner

Reaction equation



Reactant

Table 4278: Properties of each reactant.

Id	Name	SBO
DaL11CG	DaL11CG	

Modifier

Table 4279: Properties of each modifier.

Id	Name	SBO
DaL11CG	DaL11CG	

Product

Table 4280: Properties of each product.

Id	Name	SBO
RL11CG	RL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1425} = k_{uDIM} \cdot [DaL11CG]$$

(2875)

7.1426 Reaction r1426

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11CC loses partner

Reaction equation



Reactant

Table 4281: Properties of each reactant.

Id	Name	SBO
DaL11CC	DaL11CC	

Modifier

Table 4282: Properties of each modifier.

Id	Name	SBO
DaL11CC	DaL11CC	

Product

Table 4283: Properties of each product.

Id	Name	SBO
RL11CC	RL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1426} = k_{uDIM} \cdot [DaL11CC] \tag{2877}$$

7.1427 Reaction [r1427](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL11LG loses partner

Reaction equation



Reactant

Table 4284: Properties of each reactant.

Id	Name	SBO
DaL11LG	DaL11LG	

Modifier

Table 4285: Properties of each modifier.

Id	Name	SBO
DaL11LG	DaL11LG	

Product

Table 4286: Properties of each product.

Id	Name	SBO
RL11LG	RL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1427} = ku_{DIM} \cdot [DaL11LG] \tag{2879}$$

7.1428 Reaction r1428

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UU loses partner

Reaction equation



Reactant

Table 4287: Properties of each reactant.

Id	Name	SBO
DaL02UU	DaL02UU	

Modifier

Table 4288: Properties of each modifier.

Id	Name	SBO
DaL02UU	DaL02UU	

Product

Table 4289: Properties of each product.

Id	Name	SBO
RL02UU	RL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1428} = k_{uDIM} \cdot [DaL02UU] \tag{2881}$$

7.1429 Reaction r1429

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UG loses partner

Reaction equation



Reactant

Table 4290: Properties of each reactant.

Id	Name	SBO
DaL02UG	DaL02UG	

Modifier

Table 4291: Properties of each modifier.

Id	Name	SBO
DaL02UG	DaL02UG	

Product

Table 4292: Properties of each product.

Id	Name	SBO
RL02UG	RL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1429} = k_{\text{uDIM}} \cdot [\text{DaL02UG}] \quad (2883)$$

7.1430 Reaction r1430

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL02UL loses partner

Reaction equation**Reactant**

Table 4293: Properties of each reactant.

Id	Name	SBO
DaL02UL	DaL02UL	

Modifier

Table 4294: Properties of each modifier.

Id	Name	SBO
DaL02UL	DaL02UL	

Product

Table 4295: Properties of each product.

Id	Name	SBO
RL02UL	RL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1430} = k_{uDIM} \cdot [DaL02UL]$$

(2885)

7.1431 Reaction r1431

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UU loses partner

Reaction equation



Reactant

Table 4296: Properties of each reactant.

Id	Name	SBO
DaL12UU	DaL12UU	

Modifier

Table 4297: Properties of each modifier.

Id	Name	SBO
DaL12UU	DaL12UU	

Product

Table 4298: Properties of each product.

Id	Name	SBO
RL12UU	RL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1431} = k_{uDIM} \cdot [DaL12UU]$$

(2887)

7.1432 Reaction r1432

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CU loses partner

Reaction equation



Reactant

Table 4299: Properties of each reactant.

Id	Name	SBO
DaL12CU	DaL12CU	

Modifier

Table 4300: Properties of each modifier.

Id	Name	SBO
DaL12CU	DaL12CU	

Product

Table 4301: Properties of each product.

Id	Name	SBO
RL12CU	RL12CU	

Kinetic Law

Derived unit contains undeclared units

$v_{1432} = k_{\text{uDIM}} \cdot [\text{DaL12CU}]$

(2889)

7.1433 Reaction r1433

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LU loses partner

Reaction equation



Reactant

Table 4302: Properties of each reactant.

Id	Name	SBO
DaL12LU	DaL12LU	

Modifier

Table 4303: Properties of each modifier.

Id	Name	SBO
DaL12LU	DaL12LU	

Product

Table 4304: Properties of each product.

Id	Name	SBO
RL12LU	RL12LU	

Kinetic Law

Derived unit contains undeclared units

$v_{1433} = \text{kuDIM} \cdot [\text{DaL12LU}]$

(2891)

7.1434 Reaction r1434

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UG loses partner

Reaction equation



Reactant

Table 4305: Properties of each reactant.

Id	Name	SBO
DaL12UG	DaL12UG	

Modifier

Table 4306: Properties of each modifier.

Id	Name	SBO
DaL12UG	DaL12UG	

Product

Table 4307: Properties of each product.

Id	Name	SBO
RL12UG	RL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1434} = k_{uDIM} \cdot [DaL12UG]$$

(2893)

7.1435 Reaction r1435

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12UL loses partner

Reaction equation



Reactant

Table 4308: Properties of each reactant.

Id	Name	SBO
DaL12UL	DaL12UL	

Modifier

Table 4309: Properties of each modifier.

Id	Name	SBO
DaL12UL	DaL12UL	

Product

Table 4310: Properties of each product.

Id	Name	SBO
RL12UL	RL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1435} = k_{uDIM} \cdot [DaL12UL] \tag{2895}$$

7.1436 Reaction r1436

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CG loses partner

Reaction equation



Reactant

Table 4311: Properties of each reactant.

Id	Name	SBO
DaL12CG	DaL12CG	

Modifier

Table 4312: Properties of each modifier.

Id	Name	SBO
DaL12CG	DaL12CG	

Product

Table 4313: Properties of each product.

Id	Name	SBO
RL12CG	RL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1436} = ku_{DIM} \cdot [DaL12CG] \tag{2897}$$

7.1437 Reaction r1437

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12CC loses partner

Reaction equation



Reactant

Table 4314: Properties of each reactant.

Id	Name	SBO
DaL12CC	DaL12CC	

Modifier

Table 4315: Properties of each modifier.

Id	Name	SBO
DaL12CC	DaL12CC	

Product

Table 4316: Properties of each product.

Id	Name	SBO
RL12CC	RL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1437} = k_{uDIM} \cdot [DaL12CC] \tag{2899}$$

7.1438 Reaction r1438

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name DaL12LG loses partner

Reaction equation



Reactant

Table 4317: Properties of each reactant.

Id	Name	SBO
DaL12LG	DaL12LG	

Modifier

Table 4318: Properties of each modifier.

Id	Name	SBO
DaL12LG	DaL12LG	

Product

Table 4319: Properties of each product.

Id	Name	SBO
RL12LG	RL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1438} = k_{\text{uDIM}} \cdot [\text{DaL12LG}] \quad (2901)$$

7.1439 Reaction r1439

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R00UU extra homodimerizes to Di00UU

Reaction equation**Reactant**

Table 4320: Properties of each reactant.

Id	Name	SBO
R00UU	R00UU	

Modifier

Table 4321: Properties of each modifier.

Id	Name	SBO
R00UU	R00UU	

Product

Table 4322: Properties of each product.

Id	Name	SBO
Di00UU	Di00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1439} = k_{bDIM} \cdot [R00UU] \cdot [R00UU]$$

(2903)

7.1440 Reaction ~~r1440~~

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10UU extra homodimerizes to Di10UU

Reaction equation



Reactant

Table 4323: Properties of each reactant.

Id	Name	SBO
R10UU	R10UU	

Modifier

Table 4324: Properties of each modifier.

Id	Name	SBO
R10UU	R10UU	

Product

Table 4325: Properties of each product.

Id	Name	SBO
Di10UU	Di10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1440} = k_{bDIM} \cdot [R10UU] \cdot [R10UU]$$

(2905)

7.1441 Reaction r1441

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10CU extra homodimerizes to Di10CU

Reaction equation



Reactant

Table 4326: Properties of each reactant.

Id	Name	SBO
R10CU	R10CU	

Modifier

Table 4327: Properties of each modifier.

Id	Name	SBO
R10CU	R10CU	

Product

Table 4328: Properties of each product.

Id	Name	SBO
Di10CU	Di10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1441} = k_{bDIM} \cdot [\text{R10CU}] \cdot [\text{R10CU}]$$

(2907)

7.1442 Reaction r1442

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R10LU extra homodimerizes to Di10LU

Reaction equation



Reactant

Table 4329: Properties of each reactant.

Id	Name	SBO
R10LU	R10LU	

Modifier

Table 4330: Properties of each modifier.

Id	Name	SBO
R10LU	R10LU	

Product

Table 4331: Properties of each product.

Id	Name	SBO
Di10LU	Di10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1442} = \text{kbDIM} \cdot [\text{R10LU}] \cdot [\text{R10LU}]$$

(2909)

7.1443 Reaction r1443

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UU extra homodimerizes to Di01UU

Reaction equation



Reactant

Table 4332: Properties of each reactant.

Id	Name	SBO
R01UU	R01UU	

Modifier

Table 4333: Properties of each modifier.

Id	Name	SBO
R01UU	R01UU	

Product

Table 4334: Properties of each product.

Id	Name	SBO
Di01UU	Di01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1443} = kbDIM \cdot [R01UU] \cdot [R01UU]$$

(2911)

7.1444 Reaction r1444

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UG extra homodimerizes to Di01UG

Reaction equation



Reactant

Table 4335: Properties of each reactant.

Id	Name	SBO
R01UG	R01UG	

Modifier

Table 4336: Properties of each modifier.

Id	Name	SBO
R01UG	R01UG	

Product

Table 4337: Properties of each product.

Id	Name	SBO
Di01UG	Di01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1444} = kbDIM \cdot [R01UG] \cdot [R01UG] \tag{2913}$$

7.1445 Reaction r1445

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R01UL extra homodimerizes to Di01UL

Reaction equation



Reactant

Table 4338: Properties of each reactant.

Id	Name	SBO
R01UL	R01UL	

Modifier

Table 4339: Properties of each modifier.

Id	Name	SBO
R01UL	R01UL	

Product

Table 4340: Properties of each product.

Id	Name	SBO
Di01UL	Di01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1445} = kbDIM \cdot [R01UL] \cdot [R01UL] \tag{2915}$$

7.1446 Reaction r1446

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UU extra homodimerizes to Di11UU

Reaction equation



Reactant

Table 4341: Properties of each reactant.

Id	Name	SBO
R11UU	R11UU	

Modifier

Table 4342: Properties of each modifier.

Id	Name	SBO
R11UU	R11UU	

Product

Table 4343: Properties of each product.

Id	Name	SBO
Di11UU	Di11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1446} = kbDIM \cdot [R11UU] \cdot [R11UU] \tag{2917}$$

7.1447 Reaction r1447

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CU extra homodimerizes to Di11CU

Reaction equation



Reactant

Table 4344: Properties of each reactant.

Id	Name	SBO
R11CU	R11CU	

Modifier

Table 4345: Properties of each modifier.

Id	Name	SBO
R11CU	R11CU	

Product

Table 4346: Properties of each product.

Id	Name	SBO
Di11CU	Di11CU	

Kinetic Law**Derived unit** contains undeclared units

$$v_{1447} = kbDIM \cdot [R11CU] \cdot [R11CU] \quad (2919)$$

7.1448 Reaction r1448

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11LU extra homodimerizes to Di11LU**Reaction equation****Reactant**

Table 4347: Properties of each reactant.

Id	Name	SBO
R11LU	R11LU	

Modifier

Table 4348: Properties of each modifier.

Id	Name	SBO
R11LU	R11LU	

Product

Table 4349: Properties of each product.

Id	Name	SBO
Di11LU	Di11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1448} = k_{bDIM} \cdot [R11LU] \cdot [R11LU]$$

(2921)

7.1449 Reaction r1449

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UG extra homodimerizes to Di11UG

Reaction equation



Reactant

Table 4350: Properties of each reactant.

Id	Name	SBO
R11UG	R11UG	

Modifier

Table 4351: Properties of each modifier.

Id	Name	SBO
R11UG	R11UG	

Product

Table 4352: Properties of each product.

Id	Name	SBO
Di11UG	Di11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1449} = k_{bDIM} \cdot [R11UG] \cdot [R11UG]$$

(2923)

7.1450 Reaction r1450

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11UL extra homodimerizes to Di11UL

Reaction equation



Reactant

Table 4353: Properties of each reactant.

Id	Name	SBO
R11UL	R11UL	

Modifier

Table 4354: Properties of each modifier.

Id	Name	SBO
R11UL	R11UL	

Product

Table 4355: Properties of each product.

Id	Name	SBO
Di11UL	Di11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1450} = k_{bDIM} \cdot [\text{R11UL}] \cdot [\text{R11UL}]$$

(2925)

7.1451 Reaction r1451

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CG extra homodimerizes to Di11CG

Reaction equation



Reactant

Table 4356: Properties of each reactant.

Id	Name	SBO
R11CG	R11CG	

Modifier

Table 4357: Properties of each modifier.

Id	Name	SBO
R11CG	R11CG	

Product

Table 4358: Properties of each product.

Id	Name	SBO
Di11CG	Di11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1451} = \text{kbDIM} \cdot [\text{R11CG}] \cdot [\text{R11CG}]$$

(2927)

7.1452 Reaction r1452

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11CC extra homodimerizes to Di11CC

Reaction equation



Reactant

Table 4359: Properties of each reactant.

Id	Name	SBO
R11CC	R11CC	

Modifier

Table 4360: Properties of each modifier.

Id	Name	SBO
R11CC	R11CC	

Product

Table 4361: Properties of each product.

Id	Name	SBO
Di11CC	Di11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1452} = k_{bDIM} \cdot [R11CC] \cdot [R11CC] \tag{2929}$$

7.1453 Reaction r1453

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R11LG extra homodimerizes to Di11LG

Reaction equation



Reactant

Table 4362: Properties of each reactant.

Id	Name	SBO
R11LG	R11LG	

Modifier

Table 4363: Properties of each modifier.

Id	Name	SBO
R11LG	R11LG	

Product

Table 4364: Properties of each product.

Id	Name	SBO
Di11LG	Di11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1453} = kbDIM \cdot [R11LG] \cdot [R11LG] \tag{2931}$$

7.1454 Reaction r1454

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UU extra homodimerizes to Di02UU

Reaction equation



Reactant

Table 4365: Properties of each reactant.

Id	Name	SBO
R02UU	R02UU	

Modifier

Table 4366: Properties of each modifier.

Id	Name	SBO
R02UU	R02UU	

Product

Table 4367: Properties of each product.

Id	Name	SBO
Di02UU	Di02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1454} = kbDIM \cdot [R02UU] \cdot [R02UU] \tag{2933}$$

7.1455 Reaction r1455

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UG extra homodimerizes to Di02UG

Reaction equation



Reactant

Table 4368: Properties of each reactant.

Id	Name	SBO
R02UG	R02UG	

Modifier

Table 4369: Properties of each modifier.

Id	Name	SBO
R02UG	R02UG	

Product

Table 4370: Properties of each product.

Id	Name	SBO
Di02UG	Di02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1455} = kbDIM \cdot [R02UG] \cdot [R02UG] \tag{2935}$$

7.1456 Reaction r1456

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R02UL extra homodimerizes to Di02UL

Reaction equation



Reactant

Table 4371: Properties of each reactant.

Id	Name	SBO
R02UL	R02UL	

Modifier

Table 4372: Properties of each modifier.

Id	Name	SBO
R02UL	R02UL	

Product

Table 4373: Properties of each product.

Id	Name	SBO
Di02UL	Di02UL	

Kinetic Law**Derived unit** contains undeclared units

$$v_{1456} = k_{bDIM} \cdot [R02UL] \cdot [R02UL] \quad (2937)$$

7.1457 Reaction r1457

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UU extra homodimerizes to Di12UU**Reaction equation****Reactant**

Table 4374: Properties of each reactant.

Id	Name	SBO
R12UU	R12UU	

Modifier

Table 4375: Properties of each modifier.

Id	Name	SBO
R12UU	R12UU	

Product

Table 4376: Properties of each product.

Id	Name	SBO
Di12UU	Di12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1457} = k_{bDIM} \cdot [R12UU] \cdot [R12UU]$$

(2939)

7.1458 Reaction r1458

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CU extra homodimerizes to Di12CU

Reaction equation



Reactant

Table 4377: Properties of each reactant.

Id	Name	SBO
R12CU	R12CU	

Modifier

Table 4378: Properties of each modifier.

Id	Name	SBO
R12CU	R12CU	

Product

Table 4379: Properties of each product.

Id	Name	SBO
Di12CU	Di12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1458} = k_{bDIM} \cdot [R12CU] \cdot [R12CU]$$

(2941)

7.1459 Reaction r1459

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LU extra homodimerizes to Di12LU

Reaction equation



Reactant

Table 4380: Properties of each reactant.

Id	Name	SBO
R12LU	R12LU	

Modifier

Table 4381: Properties of each modifier.

Id	Name	SBO
R12LU	R12LU	

Product

Table 4382: Properties of each product.

Id	Name	SBO
Di12LU	Di12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1459} = \text{kbDIM} \cdot [\text{R12LU}] \cdot [\text{R12LU}]$$

(2943)

7.1460 Reaction r1460

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UG extra homodimerizes to Di12UG

Reaction equation



Reactant

Table 4383: Properties of each reactant.

Id	Name	SBO
R12UG	R12UG	

Modifier

Table 4384: Properties of each modifier.

Id	Name	SBO
R12UG	R12UG	

Product

Table 4385: Properties of each product.

Id	Name	SBO
Di12UG	Di12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1460} = k_{bDIM} \cdot [\text{R12UG}] \cdot [\text{R12UG}]$$

(2945)

7.1461 Reaction r1461

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12UL extra homodimerizes to Di12UL

Reaction equation



Reactant

Table 4386: Properties of each reactant.

Id	Name	SBO
R12UL	R12UL	

Modifier

Table 4387: Properties of each modifier.

Id	Name	SBO
R12UL	R12UL	

Product

Table 4388: Properties of each product.

Id	Name	SBO
Di12UL	Di12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1461} = kbDIM \cdot [R12UL] \cdot [R12UL] \tag{2947}$$

7.1462 Reaction r1462

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CG extra homodimerizes to Di12CG

Reaction equation



Reactant

Table 4389: Properties of each reactant.

Id	Name	SBO
R12CG	R12CG	

Modifier

Table 4390: Properties of each modifier.

Id	Name	SBO
R12CG	R12CG	

Product

Table 4391: Properties of each product.

Id	Name	SBO
Di12CG	Di12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1462} = kbDIM \cdot [R12CG] \cdot [R12CG] \tag{2949}$$

7.1463 Reaction r1463

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12CC extra homodimerizes to Di12CC

Reaction equation



Reactant

Table 4392: Properties of each reactant.

Id	Name	SBO
R12CC	R12CC	

Modifier

Table 4393: Properties of each modifier.

Id	Name	SBO
R12CC	R12CC	

Product

Table 4394: Properties of each product.

Id	Name	SBO
Di12CC	Di12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1463} = kbDIM \cdot [R12CC] \cdot [R12CC] \tag{2951}$$

7.1464 Reaction r1464

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name R12LG extra homodimerizes to Di12LG

Reaction equation



Reactant

Table 4395: Properties of each reactant.

Id	Name	SBO
R12LG	R12LG	

Modifier

Table 4396: Properties of each modifier.

Id	Name	SBO
R12LG	R12LG	

Product

Table 4397: Properties of each product.

Id	Name	SBO
Di12LG	Di12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1464} = k_{bDIM} \cdot [R12LG] \cdot [R12LG] \tag{2953}$$

7.1465 Reaction r1465

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL00UU extra homodimerizes to DaL00UU

Reaction equation



Reactant

Table 4398: Properties of each reactant.

Id	Name	SBO
RL00UU	RL00UU	

Modifier

Table 4399: Properties of each modifier.

Id	Name	SBO
RL00UU	RL00UU	

Product

Table 4400: Properties of each product.

Id	Name	SBO
DaL00UU	DaL00UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1465} = kbDIM \cdot [RL00UU] \cdot [RL00UU] \quad (2955)$$

7.1466 Reaction r1466

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10UU extra homodimerizes to DaL10UU

Reaction equation**Reactant**

Table 4401: Properties of each reactant.

Id	Name	SBO
RL10UU	RL10UU	

Modifier

Table 4402: Properties of each modifier.

Id	Name	SBO
RL10UU	RL10UU	

Product

Table 4403: Properties of each product.

Id	Name	SBO
DaL10UU	DaL10UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1466} = k_{bDIM} \cdot [RL10UU] \cdot [RL10UU]$$

(2957)

7.1467 Reaction r1467

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10CU extra homodimerizes to DaL10CU

Reaction equation



Reactant

Table 4404: Properties of each reactant.

Id	Name	SBO
RL10CU	RL10CU	

Modifier

Table 4405: Properties of each modifier.

Id	Name	SBO
RL10CU	RL10CU	

Product

Table 4406: Properties of each product.

Id	Name	SBO
DaL10CU	DaL10CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1467} = k_{bDIM} \cdot [RL10CU] \cdot [RL10CU]$$

(2959)

7.1468 Reaction r1468

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL10LU extra homodimerizes to DaL10LU

Reaction equation



Reactant

Table 4407: Properties of each reactant.

Id	Name	SBO
RL10LU	RL10LU	

Modifier

Table 4408: Properties of each modifier.

Id	Name	SBO
RL10LU	RL10LU	

Product

Table 4409: Properties of each product.

Id	Name	SBO
DaL10LU	DaL10LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1468} = \text{kbDIM} \cdot [\text{RL10LU}] \cdot [\text{RL10LU}]$$

(2961)

7.1469 Reaction r1469

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UU extra homodimerizes to DaL01UU

Reaction equation



Reactant

Table 4410: Properties of each reactant.

Id	Name	SBO
RL01UU	RL01UU	

Modifier

Table 4411: Properties of each modifier.

Id	Name	SBO
RL01UU	RL01UU	

Product

Table 4412: Properties of each product.

Id	Name	SBO
DaL01UU	DaL01UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1469} = \text{kbDIM} \cdot [\text{RL01UU}] \cdot [\text{RL01UU}]$$

(2963)

7.1470 Reaction rl470

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UG extra homodimerizes to DaL01UG

Reaction equation



Reactant

Table 4413: Properties of each reactant.

Id	Name	SBO
RL01UG	RL01UG	

Modifier

Table 4414: Properties of each modifier.

Id	Name	SBO
RL01UG	RL01UG	

Product

Table 4415: Properties of each product.

Id	Name	SBO
DaL01UG	DaL01UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1470} = kbDIM \cdot [RL01UG] \cdot [RL01UG] \tag{2965}$$

7.1471 Reaction [r1471](#)

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL01UL extra homodimerizes to DaL01UL

Reaction equation



Reactant

Table 4416: Properties of each reactant.

Id	Name	SBO
RL01UL	RL01UL	

Modifier

Table 4417: Properties of each modifier.

Id	Name	SBO
RL01UL	RL01UL	

Product

Table 4418: Properties of each product.

Id	Name	SBO
DaL01UL	DaL01UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1471} = kbDIM \cdot [RL01UL] \cdot [RL01UL] \tag{2967}$$

7.1472 Reaction r1472

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UU extra homodimerizes to DaL11UU

Reaction equation



Reactant

Table 4419: Properties of each reactant.

Id	Name	SBO
RL11UU	RL11UU	

Modifier

Table 4420: Properties of each modifier.

Id	Name	SBO
RL11UU	RL11UU	

Product

Table 4421: Properties of each product.

Id	Name	SBO
DaL11UU	DaL11UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1472} = \text{kbDIM} \cdot [\text{RL11UU}] \cdot [\text{RL11UU}] \tag{2969}$$

7.1473 Reaction r1473

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CU extra homodimerizes to DaL11CU

Reaction equation



Reactant

Table 4422: Properties of each reactant.

Id	Name	SBO
RL11CU	RL11CU	

Modifier

Table 4423: Properties of each modifier.

Id	Name	SBO
RL11CU	RL11CU	

Product

Table 4424: Properties of each product.

Id	Name	SBO
DaL11CU	DaL11CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1473} = kbDIM \cdot [RL11CU] \cdot [RL11CU] \tag{2971}$$

7.1474 Reaction r1474

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11LU extra homodimerizes to DaL11LU

Reaction equation



Reactant

Table 4425: Properties of each reactant.

Id	Name	SBO
RL11LU	RL11LU	

Modifier

Table 4426: Properties of each modifier.

Id	Name	SBO
RL11LU	RL11LU	

Product

Table 4427: Properties of each product.

Id	Name	SBO
DaL11LU	DaL11LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1474} = kbDIM \cdot [RL11LU] \cdot [RL11LU] \quad (2973)$$

7.1475 Reaction r1475

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UG extra homodimerizes to DaL11UG

Reaction equation**Reactant**

Table 4428: Properties of each reactant.

Id	Name	SBO
RL11UG	RL11UG	

Modifier

Table 4429: Properties of each modifier.

Id	Name	SBO
RL11UG	RL11UG	

Product

Table 4430: Properties of each product.

Id	Name	SBO
DaL11UG	DaL11UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1475} = k_{bDIM} \cdot [RL11UG] \cdot [RL11UG]$$

(2975)

7.1476 Reaction r1476

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11UL extra homodimerizes to DaL11UL

Reaction equation



Reactant

Table 4431: Properties of each reactant.

Id	Name	SBO
RL11UL	RL11UL	

Modifier

Table 4432: Properties of each modifier.

Id	Name	SBO
RL11UL	RL11UL	

Product

Table 4433: Properties of each product.

Id	Name	SBO
DaL11UL	DaL11UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1476} = k_{bDIM} \cdot [RL11UL] \cdot [RL11UL]$$

(2977)

7.1477 Reaction r1477

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CG extra homodimerizes to DaL11CG

Reaction equation



Reactant

Table 4434: Properties of each reactant.

Id	Name	SBO
RL11CG	RL11CG	

Modifier

Table 4435: Properties of each modifier.

Id	Name	SBO
RL11CG	RL11CG	

Product

Table 4436: Properties of each product.

Id	Name	SBO
DaL11CG	DaL11CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1477} = \text{kbDIM} \cdot [\text{RL11CG}] \cdot [\text{RL11CG}]$$

(2979)

7.1478 Reaction r1478

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11CC extra homodimerizes to DaL11CC

Reaction equation



Reactant

Table 4437: Properties of each reactant.

Id	Name	SBO
RL11CC	RL11CC	

Modifier

Table 4438: Properties of each modifier.

Id	Name	SBO
RL11CC	RL11CC	

Product

Table 4439: Properties of each product.

Id	Name	SBO
DaL11CC	DaL11CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1478} = \text{kbDIM} \cdot [\text{RL11CC}] \cdot [\text{RL11CC}]$$

(2981)

7.1479 Reaction r1479

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL11LG extra homodimerizes to DaL11LG

Reaction equation



Reactant

Table 4440: Properties of each reactant.

Id	Name	SBO
RL11LG	RL11LG	

Modifier

Table 4441: Properties of each modifier.

Id	Name	SBO
RL11LG	RL11LG	

Product

Table 4442: Properties of each product.

Id	Name	SBO
DaL11LG	DaL11LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1479} = kbDIM \cdot [RL11LG] \cdot [RL11LG]$$

(2983)

7.1480 Reaction r1480

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UU extra homodimerizes to DaL02UU

Reaction equation



Reactant

Table 4443: Properties of each reactant.

Id	Name	SBO
RL02UU	RL02UU	

Modifier

Table 4444: Properties of each modifier.

Id	Name	SBO
RL02UU	RL02UU	

Product

Table 4445: Properties of each product.

Id	Name	SBO
DaL02UU	DaL02UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1480} = kbDIM \cdot [RL02UU] \cdot [RL02UU] \tag{2985}$$

7.1481 Reaction r1481

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UG extra homodimerizes to DaL02UG

Reaction equation



Reactant

Table 4446: Properties of each reactant.

Id	Name	SBO
RL02UG	RL02UG	

Modifier

Table 4447: Properties of each modifier.

Id	Name	SBO
RL02UG	RL02UG	

Product

Table 4448: Properties of each product.

Id	Name	SBO
DaL02UG	DaL02UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1481} = kbDIM \cdot [RL02UG] \cdot [RL02UG] \tag{2987}$$

7.1482 Reaction r1482

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL02UL extra homodimerizes to DaL02UL

Reaction equation



Reactant

Table 4449: Properties of each reactant.

Id	Name	SBO
RL02UL	RL02UL	

Modifier

Table 4450: Properties of each modifier.

Id	Name	SBO
RL02UL	RL02UL	

Product

Table 4451: Properties of each product.

Id	Name	SBO
DaL02UL	DaL02UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1482} = kbDIM \cdot [RL02UL] \cdot [RL02UL] \tag{2989}$$

7.1483 Reaction r1483

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UU extra homodimerizes to DaL12UU

Reaction equation



Reactant

Table 4452: Properties of each reactant.

Id	Name	SBO
RL12UU	RL12UU	

Modifier

Table 4453: Properties of each modifier.

Id	Name	SBO
RL12UU	RL12UU	

Product

Table 4454: Properties of each product.

Id	Name	SBO
DaL12UU	DaL12UU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1483} = kbDIM \cdot [RL12UU] \cdot [RL12UU] \quad (2991)$$

7.1484 Reaction r1484

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CU extra homodimerizes to DaL12CU

Reaction equation**Reactant**

Table 4455: Properties of each reactant.

Id	Name	SBO
RL12CU	RL12CU	

Modifier

Table 4456: Properties of each modifier.

Id	Name	SBO
RL12CU	RL12CU	

Product

Table 4457: Properties of each product.

Id	Name	SBO
DaL12CU	DaL12CU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1484} = k_{bDIM} \cdot [RL12CU] \cdot [RL12CU]$$

(2993)

7.1485 Reaction r1485

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LU extra homodimerizes to DaL12LU

Reaction equation



Reactant

Table 4458: Properties of each reactant.

Id	Name	SBO
RL12LU	RL12LU	

Modifier

Table 4459: Properties of each modifier.

Id	Name	SBO
RL12LU	RL12LU	

Product

Table 4460: Properties of each product.

Id	Name	SBO
DaL12LU	DaL12LU	

Kinetic Law

Derived unit contains undeclared units

$$v_{1485} = k_{bDIM} \cdot [RL12LU] \cdot [RL12LU]$$

(2995)

7.1486 Reaction r1486

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UG extra homodimerizes to DaL12UG

Reaction equation



Reactant

Table 4461: Properties of each reactant.

Id	Name	SBO
RL12UG	RL12UG	

Modifier

Table 4462: Properties of each modifier.

Id	Name	SBO
RL12UG	RL12UG	

Product

Table 4463: Properties of each product.

Id	Name	SBO
DaL12UG	DaL12UG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1486} = \text{kbDIM} \cdot [\text{RL12UG}] \cdot [\text{RL12UG}]$$

(2997)

7.1487 Reaction r1487

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12UL extra homodimerizes to DaL12UL

Reaction equation



Reactant

Table 4464: Properties of each reactant.

Id	Name	SBO
RL12UL	RL12UL	

Modifier

Table 4465: Properties of each modifier.

Id	Name	SBO
RL12UL	RL12UL	

Product

Table 4466: Properties of each product.

Id	Name	SBO
DaL12UL	DaL12UL	

Kinetic Law

Derived unit contains undeclared units

$$v_{1487} = \text{kbDIM} \cdot [\text{RL12UL}] \cdot [\text{RL12UL}]$$

(2999)

7.1488 Reaction r1488

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CG extra homodimerizes to DaL12CG

Reaction equation



Reactant

Table 4467: Properties of each reactant.

Id	Name	SBO
RL12CG	RL12CG	

Modifier

Table 4468: Properties of each modifier.

Id	Name	SBO
RL12CG	RL12CG	

Product

Table 4469: Properties of each product.

Id	Name	SBO
DaL12CG	DaL12CG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1488} = kbDIM \cdot [RL12CG] \cdot [RL12CG]$$

(3001)

7.1489 Reaction r1489

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12CC extra homodimerizes to DaL12CC

Reaction equation



Reactant

Table 4470: Properties of each reactant.

Id	Name	SBO
RL12CC	RL12CC	

Modifier

Table 4471: Properties of each modifier.

Id	Name	SBO
RL12CC	RL12CC	

Product

Table 4472: Properties of each product.

Id	Name	SBO
DaL12CC	DaL12CC	

Kinetic Law

Derived unit contains undeclared units

$$v_{1489} = kbDIM \cdot [RL12CC] \cdot [RL12CC] \tag{3003}$$

7.1490 Reaction r1490

This is a reversible reaction of one reactant forming one product influenced by one modifier.

Name RL12LG extra homodimerizes to DaL12LG

Reaction equation



Reactant

Table 4473: Properties of each reactant.

Id	Name	SBO
RL12LG	RL12LG	

Modifier

Table 4474: Properties of each modifier.

Id	Name	SBO
RL12LG	RL12LG	

Product

Table 4475: Properties of each product.

Id	Name	SBO
DaL12LG	DaL12LG	

Kinetic Law

Derived unit contains undeclared units

$$v_{1490} = kbDIM \cdot [RL12LG] \cdot [RL12LG] \tag{3005}$$

8 Derived Rate Equations

When interpreted as an ordinary differential equation framework, this model implies the following set of equations for the rates of change of each species.

Identifiers for kinetic laws highlighted in gray cannot be verified to evaluate to units of SBML substance per time. As a result, some SBML interpreters may not be able to verify the consistency of the units on quantities in the model. Please check if

- parameters without an unit definition are involved or
- volume correction is necessary because the `hasOnlySubstanceUnits` flag may be set to `false` and `spacialDimensions` > 0 for certain species.

8.1 Species L

Name L

Initial concentration 0 mol · l⁻¹

This species takes part in 416 reactions (as a reactant in [r919](#), [r920](#), [r921](#), [r922](#), [r923](#), [r924](#), [r925](#), [r926](#), [r927](#), [r928](#), [r929](#), [r930](#), [r931](#), [r932](#), [r933](#), [r934](#), [r935](#), [r936](#), [r937](#), [r938](#), [r939](#), [r940](#), [r941](#), [r942](#), [r943](#), [r944](#), [r945](#), [r946](#), [r947](#), [r948](#), [r949](#), [r950](#), [r951](#), [r952](#), [r953](#), [r954](#), [r955](#), [r956](#), [r957](#), [r958](#), [r959](#), [r960](#), [r961](#), [r962](#), [r963](#), [r964](#), [r965](#), [r966](#), [r967](#), [r968](#), [r969](#), [r970](#), [r997](#), [r998](#), [r999](#), [r1000](#), [r1001](#), [r1002](#), [r1003](#), [r1004](#), [r1005](#), [r1006](#), [r1007](#), [r1008](#), [r1009](#), [r1010](#), [r1011](#), [r1012](#), [r1013](#), [r1014](#), [r1015](#), [r1016](#), [r1017](#),

r1018, r1019, r1020, r1021, r1022, r1023, r1024, r1025, r1026, r1027, r1028, r1029,
 r1030, r1031, r1032, r1033, r1034, r1035, r1036, r1037, r1038, r1039, r1040, r1041,
 r1042, r1043, r1044, r1045, r1046, r1047, r1048 and as a product in r1075, r1076, r1077,
 r1078, r1079, r1080, r1081, r1082, r1083, r1084, r1085, r1086, r1087, r1088, r1089,
 r1090, r1091, r1092, r1093, r1094, r1095, r1096, r1097, r1098, r1099, r1100, r1101,
 r1102, r1103, r1104, r1105, r1106, r1107, r1108, r1109, r1110, r1111, r1112, r1113,
 r1114, r1115, r1116, r1117, r1118, r1119, r1120, r1121, r1122, r1123, r1124, r1125,
 r1126, r1153, r1154, r1155, r1156, r1157, r1158, r1159, r1160, r1161, r1162, r1163,
 r1164, r1165, r1166, r1167, r1168, r1169, r1170, r1171, r1172, r1173, r1174, r1175,
 r1176, r1177, r1178, r1205, r1206, r1207, r1208, r1209, r1210, r1211, r1212, r1213,
 r1214, r1215, r1216, r1217, r1218, r1219, r1220, r1221, r1222, r1223, r1224, r1225,
 r1226, r1227, r1228, r1229, r1230 and as a modifier in r919, r920, r921, r922, r923, r924,
 r925, r926, r927, r928, r929, r930, r931, r932, r933, r934, r935, r936, r937, r938, r939,
 r940, r941, r942, r943, r944, r945, r946, r947, r948, r949, r950, r951, r952, r953, r954,
 r955, r956, r957, r958, r959, r960, r961, r962, r963, r964, r965, r966, r967, r968, r969,
 r970, r971, r971, r972, r972, r973, r973, r974, r974, r975, r975, r976, r976, r977, r977,
 r978, r978, r979, r979, r980, r980, r981, r981, r982, r982, r983, r983, r984, r984, r985,
 r985, r986, r986, r987, r987, r988, r988, r989, r989, r990, r990, r991, r991, r992, r992,
 r993, r993, r994, r994, r995, r995, r996, r996, r997, r998, r999, r1000, r1001, r1002,
 r1003, r1004, r1005, r1006, r1007, r1008, r1009, r1010, r1011, r1012, r1013, r1014,
 r1015, r1016, r1017, r1018, r1019, r1020, r1021, r1022, r1023, r1024, r1025, r1026,
 r1027, r1028, r1029, r1030, r1031, r1032, r1033, r1034, r1035, r1036, r1037, r1038,
 r1039, r1040, r1041, r1042, r1043, r1044, r1045, r1046, r1047, r1048, r1049, r1049,
 r1050, r1050, r1051, r1051, r1052, r1052, r1053, r1053, r1054, r1054, r1055, r1055,
 r1056, r1056, r1057, r1057, r1058, r1058, r1059, r1059, r1060, r1060, r1061, r1061,
 r1062, r1062, r1063, r1063, r1064, r1064, r1065, r1065, r1066, r1066, r1067, r1067,
 r1068, r1068, r1069, r1069, r1070, r1070, r1071, r1071, r1072, r1072, r1073, r1073,
 r1074, r1074).

$$\frac{d}{dt}L = \begin{aligned} &v_{1075} + v_{1076} + v_{1077} + v_{1078} + v_{1079} + v_{1080} + v_{1081} + v_{1082} + v_{1083} + v_{1084} \\ &+ v_{1085} + v_{1086} + v_{1087} + v_{1088} + v_{1089} + v_{1090} + v_{1091} + v_{1092} + v_{1093} + v_{1094} \\ &+ v_{1095} + v_{1096} + v_{1097} + v_{1098} + v_{1099} + v_{1100} + v_{1101} + v_{1102} + v_{1103} + v_{1104} \\ &+ v_{1105} + v_{1106} + v_{1107} + v_{1108} + v_{1109} + v_{1110} + v_{1111} + v_{1112} + v_{1113} + v_{1114} \\ &+ v_{1115} + v_{1116} + v_{1117} + v_{1118} + v_{1119} + v_{1120} + v_{1121} + v_{1122} + v_{1123} + v_{1124} \\ &+ v_{1125} + v_{1126} + v_{1153} + v_{1154} + v_{1155} + v_{1156} + v_{1157} + v_{1158} + v_{1159} + v_{1160} \\ &+ v_{1161} + v_{1162} + v_{1163} + v_{1164} + v_{1165} + v_{1166} + v_{1167} + v_{1168} + v_{1169} + v_{1170} \\ &+ v_{1171} + v_{1172} + v_{1173} + v_{1174} + v_{1175} + v_{1176} + v_{1177} + v_{1178} + v_{1205} + v_{1206} \\ &+ v_{1207} + v_{1208} + v_{1209} + v_{1210} + v_{1211} + v_{1212} + v_{1213} + v_{1214} + v_{1215} + v_{1216} \\ &+ v_{1217} + v_{1218} + v_{1219} + v_{1220} + v_{1221} + v_{1222} + v_{1223} + v_{1224} + v_{1225} + v_{1226} \\ &+ v_{1227} + v_{1228} + v_{1229} + v_{1230} - v_{919} - v_{920} - v_{921} - v_{922} - v_{923} - v_{924} \\ &- v_{925} - v_{926} - v_{927} - v_{928} - v_{929} - v_{930} - v_{931} - v_{932} - v_{933} - v_{934} \\ &- v_{935} - v_{936} - v_{937} - v_{938} - v_{939} - v_{940} - v_{941} - v_{942} - v_{943} - v_{944} - v_{945} \\ &- v_{946} - v_{947} - v_{948} - v_{949} - v_{950} - v_{951} - v_{952} - v_{953} - v_{954} - v_{955} - v_{956} \\ &- v_{957} - v_{958} - v_{959} - v_{960} - v_{961} - v_{962} - v_{963} - v_{964} - v_{965} - v_{966} - v_{967} \\ &- v_{968} - v_{969} - v_{970} - v_{977} - v_{998} - v_{999} - v_{1000} - v_{1001} - v_{1002} - v_{1003} \\ &- v_{1004} - v_{1005} - v_{1006} - v_{1007} - v_{1008} - v_{1009} - v_{1010} - v_{1011} - v_{1012} \\ &- v_{1013} - v_{1014} - v_{1015} - v_{1016} - v_{1017} - v_{1018} - v_{1019} - v_{1020} - v_{1021} \\ &- v_{1022} - v_{1023} - v_{1024} - v_{1025} - v_{1026} - v_{1027} - v_{1028} - v_{1029} - v_{1030} \\ &- v_{1031} - v_{1032} - v_{1033} - v_{1034} - v_{1035} - v_{1036} - v_{1037} - v_{1038} - v_{1039} \\ &- v_{1040} - v_{1041} - v_{1042} - v_{1043} - v_{1044} - v_{1045} - v_{1046} - v_{1047} - v_{1048} \end{aligned}$$

(3006)

8.2 Species Cbl

Name Cbl

Initial concentration $2.80975332814237 \cdot 10^{-5} \text{ mol} \cdot \text{l}^{-1}$

This species takes part in 219 reactions (as a reactant in [r221](#), [r223](#), [r233](#), [r235](#), [r251](#), [r255](#), [r267](#), [r269](#), [r285](#), [r289](#), [r297](#), [r307](#), [r309](#), [r325](#), [r329](#), [r341](#), [r343](#), [r359](#), [r363](#), [r371](#), [r381](#), [r383](#), [r399](#), [r403](#), [r415](#), [r417](#), [r433](#), [r437](#), [r445](#), [r455](#), [r457](#), [r473](#), [r477](#), [r489](#), [r491](#), [r507](#), [r511](#), [r519](#), [r529](#), [r531](#), [r547](#), [r551](#), [r563](#), [r565](#), [r581](#), [r585](#), [r593](#), [r603](#), [r605](#), [r621](#), [r625](#), [r637](#), [r639](#), [r655](#), [r659](#), [r667](#), [r677](#), [r679](#), [r695](#), [r699](#), [r711](#), [r713](#), [r729](#), [r733](#), [r741](#), [r751](#), [r753](#), [r769](#), [r773](#), [r785](#), [r787](#), [r803](#), [r807](#) and as a product in [r222](#), [r224](#), [r234](#), [r236](#), [r252](#), [r256](#), [r268](#), [r270](#), [r286](#), [r290](#), [r298](#), [r308](#), [r310](#), [r326](#), [r330](#), [r342](#), [r344](#), [r360](#), [r364](#), [r372](#), [r382](#), [r384](#), [r400](#), [r404](#), [r416](#), [r418](#), [r434](#), [r438](#), [r446](#), [r456](#), [r458](#), [r474](#), [r478](#), [r490](#), [r492](#), [r508](#), [r512](#), [r520](#), [r530](#), [r532](#), [r548](#), [r552](#), [r564](#), [r566](#), [r582](#), [r586](#), [r594](#), [r604](#), [r606](#), [r622](#), [r626](#), [r638](#), [r640](#), [r656](#), [r660](#), [r668](#), [r678](#), [r680](#), [r696](#), [r700](#), [r712](#), [r714](#), [r730](#), [r734](#), [r742](#), [r752](#), [r754](#), [r770](#), [r774](#), [r786](#), [r788](#), [r804](#), [r808](#) and as a modifier

in r221, r223, r233, r235, r251, r255, r267, r269, r285, r289, r297, r307, r309, r325, r329, r341, r343, r359, r363, r371, r381, r383, r399, r403, r415, r417, r433, r437, r445, r455, r457, r473, r477, r489, r491, r507, r511, r519, r529, r531, r547, r551, r563, r565, r581, r585, r593, r603, r605, r621, r625, r637, r639, r655, r659, r667, r677, r679, r695, r699, r711, r713, r729, r733, r741, r751, r753, r769, r773, r785, r787, r803, r807).

$$\begin{aligned} \frac{d}{dt} \text{Cbl} = & v_{222} + v_{224} + v_{234} + v_{236} + v_{252} + v_{256} + v_{268} + v_{270} + v_{286} + v_{290} + v_{298} \\ & + v_{308} + v_{310} + v_{326} + v_{330} + v_{342} + v_{344} + v_{360} + v_{364} + v_{372} + v_{382} + v_{384} \\ & + v_{400} + v_{404} + v_{416} + v_{418} + v_{434} + v_{438} + v_{446} + v_{456} + v_{458} + v_{474} + v_{478} \\ & + v_{490} + v_{492} + v_{508} + v_{512} + v_{520} + v_{530} + v_{532} + v_{548} + v_{552} + v_{564} + v_{566} \\ & + v_{582} + v_{586} + v_{594} + v_{604} + v_{606} + v_{622} + v_{626} + v_{638} + v_{640} + v_{656} + v_{660} \\ & + v_{668} + v_{678} + v_{680} + v_{696} + v_{700} + v_{712} + v_{714} + v_{730} + v_{734} + v_{742} + v_{752} \\ & + v_{754} + v_{770} + v_{774} + v_{786} + v_{788} + v_{804} + v_{808} - v_{221} - v_{223} - v_{233} \\ & - v_{235} - v_{251} - v_{255} - v_{267} - v_{269} - v_{285} - v_{289} - v_{297} - v_{307} - v_{309} \\ & - v_{325} - v_{329} - v_{341} - v_{343} - v_{359} - v_{363} - v_{371} - v_{381} - v_{383} - v_{399} \\ & - v_{403} - v_{415} - v_{417} - v_{433} - v_{437} - v_{445} - v_{455} - v_{457} - v_{473} - v_{477} \\ & - v_{489} - v_{491} - v_{507} - v_{511} - v_{519} - v_{529} - v_{531} - v_{547} - v_{551} - v_{563} \\ & - v_{565} - v_{581} - v_{585} - v_{593} - v_{603} - v_{605} - v_{621} - v_{625} - v_{637} - v_{639} \\ & - v_{655} - v_{659} - v_{667} - v_{677} - v_{679} - v_{695} - v_{699} - v_{711} - v_{713} - v_{729} \\ & - v_{733} - v_{741} - v_{751} - v_{753} - v_{769} - v_{773} - v_{785} - v_{787} - v_{803} - v_{807} \end{aligned} \quad (3007)$$

8.3 Species Grb2

Name Grb2

Initial concentration 3.32 mol · l⁻¹

This species takes part in 315 reactions (as a reactant in r221, r227, r229, r239, r243, r245, r247, r261, r263, r273, r277, r279, r281, r295, r301, r303, r313, r317, r319, r321, r335, r337, r347, r351, r353, r355, r369, r375, r377, r387, r391, r393, r395, r409, r411, r421, r425, r427, r429, r443, r449, r451, r461, r465, r467, r469, r483, r485, r495, r499, r501, r503, r517, r523, r525, r535, r539, r541, r543, r557, r559, r569, r573, r575, r577, r591, r597, r599, r609, r613, r615, r617, r631, r633, r643, r647, r649, r651, r665, r671, r673, r683, r687, r689, r691, r705, r707, r717, r721, r723, r725, r739, r745, r747, r757, r761, r763, r765, r779, r781, r791, r795, r797, r799, r813 and as a product in r222, r228, r230, r240, r244, r246, r248, r262, r264, r274, r278, r280, r282, r296, r302, r304, r314, r318, r320, r322, r336, r338, r348, r352, r354, r356, r370, r376, r378, r388, r392, r394, r396, r410, r412, r422, r426, r428, r430, r444, r450, r452, r462, r466, r468, r470, r484, r486, r496, r500, r502, r504, r518, r524, r526, r536, r540, r542, r544, r558, r560, r570, r574, r576, r578, r592, r598, r600, r610, r614, r616, r618, r632, r634, r644, r648, r650, r652, r666, r672, r674, r684, r688, r690, r692, r706, r708, r718, r722, r724, r726, r740, r746,

r748, r758, r762, r764, r766, r780, r782, r792, r796, r798, r800, r814 and as a modifier in r221, r227, r229, r239, r243, r245, r247, r261, r263, r273, r277, r279, r281, r295, r301, r303, r313, r317, r319, r321, r335, r337, r347, r351, r353, r355, r369, r375, r377, r387, r391, r393, r395, r409, r411, r421, r425, r427, r429, r443, r449, r451, r461, r465, r467, r469, r483, r485, r495, r499, r501, r503, r517, r523, r525, r535, r539, r541, r543, r557, r559, r569, r573, r575, r577, r591, r597, r599, r609, r613, r615, r617, r631, r633, r643, r647, r649, r651, r665, r671, r673, r683, r687, r689, r691, r705, r707, r717, r721, r723, r725, r739, r745, r747, r757, r761, r763, r765, r779, r781, r791, r795, r797, r799, r813).

$$\frac{d}{dt}\text{Grb2} = \begin{aligned} &v_{222} + v_{228} + v_{230} + v_{240} + v_{244} + v_{246} + v_{248} + v_{262} + v_{264} + v_{274} + v_{278} \\ &+ v_{280} + v_{282} + v_{296} + v_{302} + v_{304} + v_{314} + v_{318} + v_{320} + v_{322} + v_{336} + v_{338} \\ &+ v_{348} + v_{352} + v_{354} + v_{356} + v_{370} + v_{376} + v_{378} + v_{388} + v_{392} + v_{394} + v_{396} \\ &+ v_{410} + v_{412} + v_{422} + v_{426} + v_{428} + v_{430} + v_{444} + v_{450} + v_{452} + v_{462} + v_{466} \\ &+ v_{468} + v_{470} + v_{484} + v_{486} + v_{496} + v_{500} + v_{502} + v_{504} + v_{518} + v_{524} + v_{526} \\ &+ v_{536} + v_{540} + v_{542} + v_{544} + v_{558} + v_{560} + v_{570} + v_{574} + v_{576} + v_{578} + v_{592} \\ &+ v_{598} + v_{600} + v_{610} + v_{614} + v_{616} + v_{618} + v_{632} + v_{634} + v_{644} + v_{648} + v_{650} \\ &+ v_{652} + v_{666} + v_{672} + v_{674} + v_{684} + v_{688} + v_{690} + v_{692} + v_{706} + v_{708} + v_{718} \\ &+ v_{722} + v_{724} + v_{726} + v_{740} + v_{746} + v_{748} + v_{758} + v_{762} + v_{764} + v_{766} + v_{780} \\ &+ v_{782} + v_{792} + v_{796} + v_{798} + v_{800} + v_{814} - v_{221} - v_{227} - v_{229} - v_{239} - v_{243} \\ &- v_{245} - v_{247} - v_{261} - v_{263} - v_{273} - v_{277} - v_{279} - v_{281} - v_{295} - v_{301} \\ &- v_{303} - v_{313} - v_{317} - v_{319} - v_{321} - v_{335} - v_{337} - v_{347} - v_{351} - v_{353} \\ &- v_{355} - v_{369} - v_{375} - v_{377} - v_{387} - v_{391} - v_{393} - v_{395} - v_{409} - v_{411} \\ &- v_{421} - v_{425} - v_{427} - v_{429} - v_{443} - v_{449} - v_{451} - v_{461} - v_{465} - v_{467} \\ &- v_{469} - v_{483} - v_{485} - v_{495} - v_{499} - v_{501} - v_{503} - v_{517} - v_{523} - v_{525} \\ &- v_{535} - v_{539} - v_{541} - v_{543} - v_{557} - v_{559} - v_{569} - v_{573} - v_{575} - v_{577} \\ &- v_{591} - v_{597} - v_{599} - v_{609} - v_{613} - v_{615} - v_{617} - v_{631} - v_{633} - v_{643} \\ &- v_{647} - v_{649} - v_{651} - v_{665} - v_{671} - v_{673} - v_{683} - v_{687} - v_{689} - v_{691} \\ &- v_{705} - v_{707} - v_{717} - v_{721} - v_{723} - v_{725} - v_{739} - v_{745} - v_{747} - v_{757} \\ &- v_{761} - v_{763} - v_{765} - v_{779} - v_{781} - v_{791} - v_{795} - v_{797} - v_{799} - v_{813} \end{aligned} \quad (3008)$$

8.4 Species CG

Name CG

Initial concentration 0.0146119024667186 mol · l⁻¹

This species takes part in 219 reactions (as a reactant in r222, r225, r231, r237, r241, r253, r265, r271, r275, r287, r299, r305, r311, r315, r327, r339, r345, r349, r361, r373, r379, r385, r389, r401, r413, r419, r423, r435, r447, r453, r459, r463, r475, r487,

r493, r497, r509, r521, r527, r533, r537, r549, r561, r567, r571, r583, r595, r601, r607, r611, r623, r635, r641, r645, r657, r669, r675, r681, r685, r697, r709, r715, r719, r731, r743, r749, r755, r759, r771, r783, r789, r793, r805 and as a product in r221, r226, r232, r238, r242, r254, r266, r272, r276, r288, r300, r306, r312, r316, r328, r340, r346, r350, r362, r374, r380, r386, r390, r402, r414, r420, r424, r436, r448, r454, r460, r464, r476, r488, r494, r498, r510, r522, r528, r534, r538, r550, r562, r568, r572, r584, r596, r602, r608, r612, r624, r636, r642, r646, r658, r670, r676, r682, r686, r698, r710, r716, r720, r732, r744, r750, r756, r760, r772, r784, r790, r794, r806 and as a modifier in r222, r225, r231, r237, r241, r253, r265, r271, r275, r287, r299, r305, r311, r315, r327, r339, r345, r349, r361, r373, r379, r385, r389, r401, r413, r419, r423, r435, r447, r453, r459, r463, r475, r487, r493, r497, r509, r521, r527, r533, r537, r549, r561, r567, r571, r583, r595, r601, r607, r611, r623, r635, r641, r645, r657, r669, r675, r681, r685, r697, r709, r715, r719, r731, r743, r749, r755, r759, r771, r783, r789, r793, r805).

$$\begin{aligned} \frac{d}{dt} \text{CG} = & v_{221} + v_{226} + v_{232} + v_{238} + v_{242} + v_{254} + v_{266} + v_{272} + v_{276} + v_{288} + v_{300} \\ & + v_{306} + v_{312} + v_{316} + v_{328} + v_{340} + v_{346} + v_{350} + v_{362} + v_{374} + v_{380} + v_{386} \\ & + v_{390} + v_{402} + v_{414} + v_{420} + v_{424} + v_{436} + v_{448} + v_{454} + v_{460} + v_{464} + v_{476} \\ & + v_{488} + v_{494} + v_{498} + v_{510} + v_{522} + v_{528} + v_{534} + v_{538} + v_{550} + v_{562} + v_{568} \\ & + v_{572} + v_{584} + v_{596} + v_{602} + v_{608} + v_{612} + v_{624} + v_{636} + v_{642} + v_{646} + v_{658} \\ & + v_{670} + v_{676} + v_{682} + v_{686} + v_{698} + v_{710} + v_{716} + v_{720} + v_{732} + v_{744} + v_{750} \\ & + v_{756} + v_{760} + v_{772} + v_{784} + v_{790} + v_{794} + v_{806} - v_{222} - v_{225} - v_{231} \\ & - v_{237} - v_{241} - v_{253} - v_{265} - v_{271} - v_{275} - v_{287} - v_{299} - v_{305} - v_{311} \\ & - v_{315} - v_{327} - v_{339} - v_{345} - v_{349} - v_{361} - v_{373} - v_{379} - v_{385} - v_{389} \\ & - v_{401} - v_{413} - v_{419} - v_{423} - v_{435} - v_{447} - v_{453} - v_{459} - v_{463} - v_{475} \\ & - v_{487} - v_{493} - v_{497} - v_{509} - v_{521} - v_{527} - v_{533} - v_{537} - v_{549} - v_{561} \\ & - v_{567} - v_{571} - v_{583} - v_{595} - v_{601} - v_{607} - v_{611} - v_{623} - v_{635} - v_{641} \\ & - v_{645} - v_{657} - v_{669} - v_{675} - v_{681} - v_{685} - v_{697} - v_{709} - v_{715} - v_{719} \\ & - v_{731} - v_{743} - v_{749} - v_{755} - v_{759} - v_{771} - v_{783} - v_{789} - v_{793} - v_{805} \end{aligned}$$

(3009)

8.5 Species PY

Name PY

Involved in rule PY

One rule which determines this species' quantity.

8.6 Species Ub

Name Ub

Involved in rule Ub

One rule which determines this species' quantity.

8.7 Species [PYNorm](#)

Name PYNorm

Involved in rule [PYNorm](#)

One rule which determines this species' quantity.

8.8 Species [UbNorm](#)

Name UbNorm

Involved in rule [UbNorm](#)

One rule which determines this species' quantity.

8.9 Species [SumM](#)

Name SumM

Involved in rule [SumM](#)

This species takes part in 104 reactions (as a modifier in [r1231](#), [r1231](#), [r1232](#), [r1232](#), [r1233](#), [r1233](#), [r1234](#), [r1234](#), [r1235](#), [r1235](#), [r1236](#), [r1236](#), [r1237](#), [r1237](#), [r1238](#), [r1238](#), [r1239](#), [r1239](#), [r1240](#), [r1240](#), [r1241](#), [r1241](#), [r1242](#), [r1242](#), [r1243](#), [r1243](#), [r1244](#), [r1244](#), [r1245](#), [r1245](#), [r1246](#), [r1246](#), [r1247](#), [r1247](#), [r1248](#), [r1248](#), [r1249](#), [r1249](#), [r1250](#), [r1250](#), [r1251](#), [r1251](#), [r1252](#), [r1252](#), [r1253](#), [r1253](#), [r1254](#), [r1254](#), [r1255](#), [r1255](#), [r1256](#), [r1256](#), [r1283](#), [r1283](#), [r1284](#), [r1284](#), [r1285](#), [r1285](#), [r1286](#), [r1286](#), [r1287](#), [r1287](#), [r1288](#), [r1288](#), [r1289](#), [r1289](#), [r1290](#), [r1290](#), [r1291](#), [r1291](#), [r1292](#), [r1292](#), [r1293](#), [r1293](#), [r1294](#), [r1294](#), [r1295](#), [r1295](#), [r1296](#), [r1296](#), [r1297](#), [r1297](#), [r1298](#), [r1298](#), [r1299](#), [r1299](#), [r1300](#), [r1300](#), [r1301](#), [r1301](#), [r1302](#), [r1302](#), [r1303](#), [r1303](#), [r1304](#), [r1304](#), [r1305](#), [r1305](#), [r1306](#), [r1306](#), [r1307](#), [r1307](#), [r1308](#), [r1308](#)) and is also involved in one rule which determines this species' quantity.

8.10 Species [SumML](#)

Name SumML

Involved in rule [SumML](#)

This species takes part in 104 reactions (as a modifier in [r1257](#), [r1257](#), [r1258](#), [r1258](#), [r1259](#), [r1259](#), [r1260](#), [r1260](#), [r1261](#), [r1261](#), [r1262](#), [r1262](#), [r1263](#), [r1263](#), [r1264](#), [r1264](#), [r1265](#), [r1265](#), [r1266](#), [r1266](#), [r1267](#), [r1267](#), [r1268](#), [r1268](#), [r1269](#), [r1269](#), [r1270](#), [r1270](#), [r1271](#), [r1271](#), [r1272](#), [r1272](#), [r1273](#), [r1273](#), [r1274](#), [r1274](#), [r1275](#), [r1275](#), [r1276](#), [r1276](#), [r1277](#), [r1277](#), [r1278](#), [r1278](#), [r1279](#), [r1279](#), [r1280](#), [r1280](#), [r1281](#), [r1281](#), [r1282](#), [r1282](#), [r1309](#),

r1309, r1310, r1310, r1311, r1311, r1312, r1312, r1313, r1313, r1314, r1314, r1315, r1315, r1316, r1316, r1317, r1317, r1318, r1318, r1319, r1319, r1320, r1320, r1321, r1321, r1322, r1322, r1323, r1323, r1324, r1324, r1325, r1325, r1326, r1326, r1327, r1327, r1328, r1328, r1329, r1329, r1330, r1330, r1331, r1331, r1332, r1332, r1333, r1333, r1334, r1334) and is also involved in one rule which determines this species' quantity.

8.11 Species Rc00UU

Name Rc00UU

Initial concentration 0.652109629206172 mol · l⁻¹

This species takes part in eight reactions (as a reactant in r841, r945 and as a product in r1, r2, r815, r1101 and as a modifier in r841, r945).

$$\frac{d}{dt}\text{Rc00UU} = v_1 + v_2 + v_{815} + v_{1101} - v_{841} - v_{945} \quad (3010)$$

8.12 Species Rc10UU

Name Rc10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in r1, r223, r225, r842, r946 and as a product in r4, r224, r226, r816, r1102 and as a modifier in r1, r223, r225, r842, r946).

$$\frac{d}{dt}\text{Rc10UU} = v_4 + v_{224} + v_{226} + v_{816} + v_{1102} - v_1 - v_{223} - v_{225} - v_{842} - v_{946} \quad (3011)$$

8.13 Species Rc10CU

Name Rc10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 13 reactions (as a reactant in r224, r227, r843, r947 and as a product in r5, r223, r228, r817, r1103 and as a modifier in r224, r227, r843, r947).

$$\frac{d}{dt}\text{Rc10CU} = v_5 + v_{223} + v_{228} + v_{817} + v_{1103} - v_{224} - v_{227} - v_{843} - v_{947} \quad (3012)$$

8.14 Species Rc10LU

Name Rc10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 13 reactions (as a reactant in r226, r228, r844, r948 and as a product in r6, r225, r227, r818, r1104 and as a modifier in r226, r228, r844, r948).

$$\frac{d}{dt}\text{Rc10LU} = v_6 + v_{225} + v_{227} + v_{818} + v_{1104} - v_{226} - v_{228} - v_{844} - v_{948} \quad (3013)$$

8.15 Species Rc01UU

Name Rc01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in r2, r229, r231, r845, r949 and as a product in r3, r9, r230, r232, r819, r1105 and as a modifier in r2, r229, r231, r845, r949).

$$\frac{d}{dt}\text{Rc01UU} = v_3 + v_9 + v_{230} + v_{232} + v_{819} + v_{1105} - v_2 - v_{229} - v_{231} - v_{845} - v_{949} \quad (3014)$$

8.16 Species Rc01UG

Name Rc01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 14 reactions (as a reactant in r230, r233, r846, r950 and as a product in r7, r10, r229, r234, r820, r1106 and as a modifier in r230, r233, r846, r950).

$$\frac{d}{dt}\text{Rc01UG} = v_7 + v_{10} + v_{229} + v_{234} + v_{820} + v_{1106} - v_{230} - v_{233} - v_{846} - v_{950} \quad (3015)$$

8.17 Species Rc01UL

Name Rc01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 14 reactions (as a reactant in r232, r234, r847, r951 and as a product in r8, r11, r231, r233, r821, r1107 and as a modifier in r232, r234, r847, r951).

$$\frac{d}{dt}\text{Rc01UL} = v_8 + v_{11} + v_{231} + v_{233} + v_{821} + v_{1107} - v_{232} - v_{234} - v_{847} - v_{951} \quad (3016)$$

8.18 Species Rc11UU

Name Rc11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in r3, r4, r235, r237, r239, r241, r848, r952 and as a product in r13, r236, r238, r240, r242, r822, r1108 and as a modifier in r3, r4, r235, r237, r239, r241, r848, r952).

$$\begin{aligned} \frac{d}{dt}\text{Rc11UU} = & v_{13} + v_{236} + v_{238} + v_{240} + v_{242} + v_{822} + v_{1108} - v_3 \\ & - v_4 - v_{235} - v_{237} - v_{239} - v_{241} - v_{848} - v_{952} \end{aligned} \quad (3017)$$

8.19 Species Rc11CU

Name Rc11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r5](#), [r236](#), [r243](#), [r245](#), [r849](#), [r953](#) and as a product in [r14](#), [r235](#), [r244](#), [r246](#), [r823](#), [r1109](#) and as a modifier in [r5](#), [r236](#), [r243](#), [r245](#), [r849](#), [r953](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc11CU} = & \textcolor{blue}{v_{14}} + \textcolor{blue}{v_{235}} + \textcolor{blue}{v_{244}} + \textcolor{blue}{v_{246}} + \textcolor{blue}{v_{823}} + \textcolor{blue}{v_{1109}} \\ & - \textcolor{blue}{v_5} - \textcolor{blue}{v_{236}} - \textcolor{blue}{v_{243}} - \textcolor{blue}{v_{245}} - \textcolor{blue}{v_{849}} - \textcolor{blue}{v_{953}} \end{aligned} \quad (3018)$$

8.20 Species Rc11LU

Name Rc11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r6](#), [r238](#), [r244](#), [r247](#), [r249](#), [r850](#), [r954](#) and as a product in [r15](#), [r237](#), [r243](#), [r248](#), [r250](#), [r824](#), [r1110](#) and as a modifier in [r6](#), [r238](#), [r244](#), [r247](#), [r249](#), [r850](#), [r954](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc11LU} = & \textcolor{blue}{v_{15}} + \textcolor{blue}{v_{237}} + \textcolor{blue}{v_{243}} + \textcolor{blue}{v_{248}} + \textcolor{blue}{v_{250}} + \textcolor{blue}{v_{824}} + \textcolor{blue}{v_{1110}} \\ & - \textcolor{blue}{v_6} - \textcolor{blue}{v_{238}} - \textcolor{blue}{v_{244}} - \textcolor{blue}{v_{247}} - \textcolor{blue}{v_{249}} - \textcolor{blue}{v_{850}} - \textcolor{blue}{v_{954}} \end{aligned} \quad (3019)$$

8.21 Species Rc11UG

Name Rc11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r7](#), [r240](#), [r251](#), [r253](#), [r255](#), [r851](#), [r955](#) and as a product in [r17](#), [r239](#), [r252](#), [r254](#), [r256](#), [r825](#), [r1111](#) and as a modifier in [r7](#), [r240](#), [r251](#), [r253](#), [r255](#), [r851](#), [r955](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc11UG} = & \textcolor{blue}{v_{17}} + \textcolor{blue}{v_{239}} + \textcolor{blue}{v_{252}} + \textcolor{blue}{v_{254}} + \textcolor{blue}{v_{256}} + \textcolor{blue}{v_{825}} + \textcolor{blue}{v_{1111}} \\ & - \textcolor{blue}{v_7} - \textcolor{blue}{v_{240}} - \textcolor{blue}{v_{251}} - \textcolor{blue}{v_{253}} - \textcolor{blue}{v_{255}} - \textcolor{blue}{v_{851}} - \textcolor{blue}{v_{955}} \end{aligned} \quad (3020)$$

8.22 Species Rc11UL

Name Rc11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r8](#), [r242](#), [r256](#), [r257](#), [r852](#), [r956](#) and as a product in [r19](#), [r241](#), [r255](#), [r258](#), [r826](#), [r1112](#) and as a modifier in [r8](#), [r242](#), [r256](#), [r257](#), [r852](#), [r956](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc11UL} = & v_{19} + v_{241} + v_{255} + v_{258} + v_{826} + v_{1112} \\ & - v_8 - v_{242} - v_{256} - v_{257} - v_{852} - v_{956} \end{aligned} \quad (3021)$$

8.23 Species Rc11CG

Name Rc11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r246](#), [r252](#), [r259](#), [r261](#), [r853](#), [r957](#) and as a product in [r20](#), [r245](#), [r251](#), [r260](#), [r262](#), [r827](#), [r1113](#) and as a modifier in [r246](#), [r252](#), [r259](#), [r261](#), [r853](#), [r957](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc11CG} = & v_{20} + v_{245} + v_{251} + v_{260} + v_{262} + v_{827} + v_{1113} \\ & - v_{246} - v_{252} - v_{259} - v_{261} - v_{853} - v_{957} \end{aligned} \quad (3022)$$

8.24 Species Rc11CC

Name Rc11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r250](#), [r258](#), [r260](#), [r854](#), [r958](#) and as a product in [r21](#), [r249](#), [r257](#), [r259](#), [r828](#), [r1114](#) and as a modifier in [r250](#), [r258](#), [r260](#), [r854](#), [r958](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc11CC} = & v_{21} + v_{249} + v_{257} + v_{259} + v_{828} + v_{1114} \\ & - v_{250} - v_{258} - v_{260} - v_{854} - v_{958} \end{aligned} \quad (3023)$$

8.25 Species Rc11LG

Name Rc11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r248](#), [r254](#), [r262](#), [r855](#), [r959](#) and as a product in [r22](#), [r247](#), [r253](#), [r261](#), [r829](#), [r1115](#) and as a modifier in [r248](#), [r254](#), [r262](#), [r855](#), [r959](#)).

$$\frac{d}{dt}\text{Rc11LG} = v_{22} + v_{247} + v_{253} + v_{261} + v_{829} + v_{1115} - v_{248} - v_{254} - v_{262} - v_{855} - v_{959} \quad (3024)$$

8.26 Species Rc02UU

Name Rc02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r9](#), [r263](#), [r265](#), [r856](#), [r960](#) and as a product in [r12](#), [r264](#), [r266](#), [r830](#), [r1116](#) and as a modifier in [r9](#), [r263](#), [r265](#), [r856](#), [r960](#)).

$$\frac{d}{dt}\text{Rc02UU} = v_{12} + v_{264} + v_{266} + v_{830} + v_{1116} - v_9 - v_{263} - v_{265} - v_{856} - v_{960} \quad (3025)$$

8.27 Species Rc02UG

Name Rc02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r10](#), [r264](#), [r267](#), [r857](#), [r961](#) and as a product in [r16](#), [r263](#), [r268](#), [r831](#), [r1117](#) and as a modifier in [r10](#), [r264](#), [r267](#), [r857](#), [r961](#)).

$$\frac{d}{dt}\text{Rc02UG} = v_{16} + v_{263} + v_{268} + v_{831} + v_{1117} - v_{10} - v_{264} - v_{267} - v_{857} - v_{961} \quad (3026)$$

8.28 Species Rc02UL

Name Rc02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r11](#), [r266](#), [r268](#), [r858](#), [r962](#) and as a product in [r18](#), [r265](#), [r267](#), [r832](#), [r1118](#) and as a modifier in [r11](#), [r266](#), [r268](#), [r858](#), [r962](#)).

$$\frac{d}{dt}\text{Rc02UL} = v_{18} + v_{265} + v_{267} + v_{832} + v_{1118} - v_{11} - v_{266} - v_{268} - v_{858} - v_{962} \quad (3027)$$

8.29 Species Rc12UU

Name Rc12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r12](#), [r13](#), [r269](#), [r271](#), [r273](#), [r275](#), [r859](#), [r963](#) and as a product in [r270](#), [r272](#), [r274](#), [r276](#), [r833](#), [r1119](#) and as a modifier in [r12](#), [r13](#), [r269](#), [r271](#), [r273](#), [r275](#), [r859](#), [r963](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc12UU} = & \textcolor{blue}{v_{270}} + \textcolor{blue}{v_{272}} + \textcolor{blue}{v_{274}} + \textcolor{blue}{v_{276}} + \textcolor{blue}{v_{833}} + \textcolor{blue}{v_{1119}} - \textcolor{blue}{v_{12}} \\ & - \textcolor{blue}{v_{13}} - \textcolor{blue}{v_{269}} - \textcolor{blue}{v_{271}} - \textcolor{blue}{v_{273}} - \textcolor{blue}{v_{275}} - \textcolor{blue}{v_{859}} - \textcolor{blue}{v_{963}} \end{aligned} \quad (3028)$$

8.30 Species Rc12CU

Name Rc12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r14](#), [r270](#), [r277](#), [r279](#), [r860](#), [r964](#) and as a product in [r269](#), [r278](#), [r280](#), [r834](#), [r1120](#) and as a modifier in [r14](#), [r270](#), [r277](#), [r279](#), [r860](#), [r964](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc12CU} = & \textcolor{blue}{v_{269}} + \textcolor{blue}{v_{278}} + \textcolor{blue}{v_{280}} + \textcolor{blue}{v_{834}} + \textcolor{blue}{v_{1120}} - \textcolor{blue}{v_{14}} \\ & - \textcolor{blue}{v_{270}} - \textcolor{blue}{v_{277}} - \textcolor{blue}{v_{279}} - \textcolor{blue}{v_{860}} - \textcolor{blue}{v_{964}} \end{aligned} \quad (3029)$$

8.31 Species Rc12LU

Name Rc12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r15](#), [r272](#), [r278](#), [r281](#), [r283](#), [r861](#), [r965](#) and as a product in [r271](#), [r277](#), [r282](#), [r284](#), [r835](#), [r1121](#) and as a modifier in [r15](#), [r272](#), [r278](#), [r281](#), [r283](#), [r861](#), [r965](#)).

$$\begin{aligned} \frac{d}{dt}\text{Rc12LU} = & \textcolor{blue}{v_{271}} + \textcolor{blue}{v_{277}} + \textcolor{blue}{v_{282}} + \textcolor{blue}{v_{284}} + \textcolor{blue}{v_{835}} + \textcolor{blue}{v_{1121}} - \textcolor{blue}{v_{15}} \\ & - \textcolor{blue}{v_{272}} - \textcolor{blue}{v_{278}} - \textcolor{blue}{v_{281}} - \textcolor{blue}{v_{283}} - \textcolor{blue}{v_{861}} - \textcolor{blue}{v_{965}} \end{aligned} \quad (3030)$$

8.32 Species Rc12UG

Name Rc12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r16](#), [r17](#), [r274](#), [r285](#), [r287](#), [r289](#), [r862](#), [r966](#) and as a product in [r273](#), [r286](#), [r288](#), [r290](#), [r836](#), [r1122](#) and as a modifier in [r16](#), [r17](#), [r274](#), [r285](#), [r287](#), [r289](#), [r862](#), [r966](#)).

$$\frac{d}{dt}\text{Rc12UG} = v_{273} + v_{286} + v_{288} + v_{290} + v_{836} + v_{1122} - v_{16} - v_{17} - v_{274} - v_{285} - v_{287} - v_{289} - v_{862} - v_{966} \quad (3031)$$

8.33 Species Rc12UL

Name Rc12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r18](#), [r19](#), [r276](#), [r290](#), [r291](#), [r863](#), [r967](#) and as a product in [r275](#), [r289](#), [r292](#), [r837](#), [r1123](#) and as a modifier in [r18](#), [r19](#), [r276](#), [r290](#), [r291](#), [r863](#), [r967](#)).

$$\frac{d}{dt}\text{Rc12UL} = v_{275} + v_{289} + v_{292} + v_{837} + v_{1123} - v_{18} - v_{19} - v_{276} - v_{290} - v_{291} - v_{863} - v_{967} \quad (3032)$$

8.34 Species Rc12CG

Name Rc12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r20](#), [r280](#), [r286](#), [r293](#), [r295](#), [r864](#), [r968](#) and as a product in [r279](#), [r285](#), [r294](#), [r296](#), [r838](#), [r1124](#) and as a modifier in [r20](#), [r280](#), [r286](#), [r293](#), [r295](#), [r864](#), [r968](#)).

$$\frac{d}{dt}\text{Rc12CG} = v_{279} + v_{285} + v_{294} + v_{296} + v_{838} + v_{1124} - v_{20} - v_{280} - v_{286} - v_{293} - v_{295} - v_{864} - v_{968} \quad (3033)$$

8.35 Species Rc12CC

Name Rc12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r21](#), [r284](#), [r292](#), [r294](#), [r865](#), [r969](#) and as a product in [r283](#), [r291](#), [r293](#), [r839](#), [r1125](#) and as a modifier in [r21](#), [r284](#), [r292](#), [r294](#), [r865](#), [r969](#)).

$$\frac{d}{dt}\text{Rc12CC} = v_{283} + v_{291} + v_{293} + v_{839} + v_{1125} - v_{21} - v_{284} - v_{292} - v_{294} - v_{865} - v_{969} \quad (3034)$$

8.36 Species Rc12LG

Name Rc12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r22](#), [r282](#), [r288](#), [r296](#), [r866](#), [r970](#) and as a product in [r281](#), [r287](#), [r295](#), [r840](#), [r1126](#) and as a modifier in [r22](#), [r282](#), [r288](#), [r296](#), [r866](#), [r970](#)).

$$\frac{d}{dt}\text{Rc12LG} = v_{281} + v_{287} + v_{295} + v_{840} + v_{1126} - v_{22} - v_{282} - v_{288} - v_{296} - v_{866} - v_{970} \quad (3035)$$

8.37 Species RcL00UU

Name RcL00UU

Initial concentration 0 mol · l⁻¹

This species takes part in eight reactions (as a reactant in [r893](#), [r1101](#) and as a product in [r23](#), [r24](#), [r867](#), [r945](#) and as a modifier in [r893](#), [r1101](#)).

$$\frac{d}{dt}\text{RcL00UU} = v_{23} + v_{24} + v_{867} + v_{945} - v_{893} - v_{1101} \quad (3036)$$

8.38 Species RcL10UU

Name RcL10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r23](#), [r297](#), [r299](#), [r894](#), [r1102](#) and as a product in [r26](#), [r298](#), [r300](#), [r868](#), [r946](#) and as a modifier in [r23](#), [r297](#), [r299](#), [r894](#), [r1102](#)).

$$\frac{d}{dt}\text{RcL10UU} = v_{26} + v_{298} + v_{300} + v_{868} + v_{946} - v_{23} - v_{297} - v_{299} - v_{894} - v_{1102} \quad (3037)$$

8.39 Species RcL10CU

Name RcL10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 13 reactions (as a reactant in r298, r301, r895, r1103 and as a product in r27, r297, r302, r869, r947 and as a modifier in r298, r301, r895, r1103).

$$\frac{d}{dt}\text{RcL10CU} = v_{27} + v_{297} + v_{302} + v_{869} + v_{947} - v_{298} - v_{301} - v_{895} - v_{1103} \quad (3038)$$

8.40 Species RcL10LU

Name RcL10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 13 reactions (as a reactant in r300, r302, r896, r1104 and as a product in r28, r299, r301, r870, r948 and as a modifier in r300, r302, r896, r1104).

$$\frac{d}{dt}\text{RcL10LU} = v_{28} + v_{299} + v_{301} + v_{870} + v_{948} - v_{300} - v_{302} - v_{896} - v_{1104} \quad (3039)$$

8.41 Species RcL01UU

Name RcL01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in r24, r303, r305, r897, r1105 and as a product in r25, r31, r304, r306, r871, r949 and as a modifier in r24, r303, r305, r897, r1105).

$$\begin{aligned} \frac{d}{dt}\text{RcL01UU} = & v_{25} + v_{31} + v_{304} + v_{306} + v_{871} + v_{949} \\ & - v_{24} - v_{303} - v_{305} - v_{897} - v_{1105} \end{aligned} \quad (3040)$$

8.42 Species RcL01UG

Name RcL01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 14 reactions (as a reactant in r304, r307, r898, r1106 and as a product in r29, r32, r303, r308, r872, r950 and as a modifier in r304, r307, r898, r1106).

$$\frac{d}{dt}\text{RcL01UG} = v_{29} + v_{32} + v_{303} + v_{308} + v_{872} + v_{950} - v_{304} - v_{307} - v_{898} - v_{1106} \quad (3041)$$

8.43 Species RcL01UL

Name RcL01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 14 reactions (as a reactant in r306, r308, r899, r1107 and as a product in r30, r33, r305, r307, r873, r951 and as a modifier in r306, r308, r899, r1107).

$$\frac{d}{dt}\text{RcL01UL} = v_{30} + v_{33} + v_{305} + v_{307} + v_{873} + v_{951} - v_{306} - v_{308} - v_{899} - v_{1107} \quad (3042)$$

8.44 Species RcL11UU

Name RcL11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in r25, r26, r309, r311, r313, r315, r900, r1108 and as a product in r35, r310, r312, r314, r316, r874, r952 and as a modifier in r25, r26, r309, r311, r313, r315, r900, r1108).

$$\begin{aligned} \frac{d}{dt}\text{RcL11UU} = & v_{35} + v_{310} + v_{312} + v_{314} + v_{316} + v_{874} + v_{952} - v_{25} \\ & - v_{26} - v_{309} - v_{311} - v_{313} - v_{315} - v_{900} - v_{1108} \end{aligned} \quad (3043)$$

8.45 Species RcL11CU

Name RcL11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in r27, r310, r317, r319, r901, r1109 and as a product in r36, r309, r318, r320, r875, r953 and as a modifier in r27, r310, r317, r319, r901, r1109).

$$\begin{aligned} \frac{d}{dt}\text{RcL11CU} = & v_{36} + v_{309} + v_{318} + v_{320} + v_{875} + v_{953} \\ & - v_{27} - v_{310} - v_{317} - v_{319} - v_{901} - v_{1109} \end{aligned} \quad (3044)$$

8.46 Species RcL11LU

Name RcL11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in r28, r312, r318, r321, r323, r902, r1110 and as a product in r37, r311, r317, r322, r324, r876, r954 and as a modifier in r28, r312, r318, r321, r323, r902, r1110).

$$\begin{aligned} \frac{d}{dt}\text{RcL11LU} = & v_{37} + v_{311} + v_{317} + v_{322} + v_{324} + v_{876} + v_{954} \\ & - v_{28} - v_{312} - v_{318} - v_{321} - v_{323} - v_{902} - v_{1110} \end{aligned} \quad (3045)$$

8.47 Species RcL11UG

Name RcL11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in r29, r314, r325, r327, r329, r903, r1111 and as a product in r39, r313, r326, r328, r330, r877, r955 and as a modifier in r29, r314, r325, r327, r329, r903, r1111).

$$\begin{aligned} \frac{d}{dt}\text{RcL11UG} = & v_{39} + v_{313} + v_{326} + v_{328} + v_{330} + v_{877} + v_{955} \\ & - v_{29} - v_{314} - v_{325} - v_{327} - v_{329} - v_{903} - v_{1111} \end{aligned} \quad (3046)$$

8.48 Species RcL11UL

Name RcL11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in r30, r316, r330, r331, r904, r1112 and as a product in r41, r315, r329, r332, r878, r956 and as a modifier in r30, r316, r330, r331, r904, r1112).

$$\begin{aligned} \frac{d}{dt}\text{RcL11UL} = & v_{41} + v_{315} + v_{329} + v_{332} + v_{878} + v_{956} \\ & - v_{30} - v_{316} - v_{330} - v_{331} - v_{904} - v_{1112} \end{aligned} \quad (3047)$$

8.49 Species RcL11CG

Name RcL11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in r320, r326, r333, r335, r905, r1113 and as a product in r42, r319, r325, r334, r336, r879, r957 and as a modifier in r320, r326, r333, r335, r905, r1113).

$$\begin{aligned} \frac{d}{dt}\text{RcL11CG} = & v_{42} + v_{319} + v_{325} + v_{334} + v_{336} + v_{879} + v_{957} \\ & - v_{320} - v_{326} - v_{333} - v_{335} - v_{905} - v_{1113} \end{aligned} \quad (3048)$$

8.50 Species RcL11CC

Name RcL11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in r324, r332, r334, r906, r1114 and as a product in r43, r323, r331, r333, r880, r958 and as a modifier in r324, r332, r334, r906, r1114).

$$\begin{aligned} \frac{d}{dt}\text{RcL11CC} = & v_{43} + v_{323} + v_{331} + v_{333} + v_{880} + v_{958} \\ & - v_{324} - v_{332} - v_{334} - v_{906} - v_{1114} \end{aligned} \quad (3049)$$

8.51 Species RcL11LG

Name RcL11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in r322, r328, r336, r907, r1115 and as a product in r44, r321, r327, r335, r881, r959 and as a modifier in r322, r328, r336, r907, r1115).

$$\begin{aligned} \frac{d}{dt}\text{RcL11LG} = & v_{44} + v_{321} + v_{327} + v_{335} + v_{881} + v_{959} \\ & - v_{322} - v_{328} - v_{336} - v_{907} - v_{1115} \end{aligned} \quad (3050)$$

8.52 Species RcL02UU

Name RcL02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r31](#), [r337](#), [r339](#), [r908](#), [r1116](#) and as a product in [r34](#), [r338](#), [r340](#), [r882](#), [r960](#) and as a modifier in [r31](#), [r337](#), [r339](#), [r908](#), [r1116](#)).

$$\frac{d}{dt}\text{RcL02UU} = v_{34} + v_{338} + v_{340} + v_{882} + v_{960} - v_{31} - v_{337} - v_{339} - v_{908} - v_{1116} \quad (3051)$$

8.53 Species RcL02UG

Name RcL02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r32](#), [r338](#), [r341](#), [r909](#), [r1117](#) and as a product in [r38](#), [r337](#), [r342](#), [r883](#), [r961](#) and as a modifier in [r32](#), [r338](#), [r341](#), [r909](#), [r1117](#)).

$$\frac{d}{dt}\text{RcL02UG} = v_{38} + v_{337} + v_{342} + v_{883} + v_{961} - v_{32} - v_{338} - v_{341} - v_{909} - v_{1117} \quad (3052)$$

8.54 Species RcL02UL

Name RcL02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r33](#), [r340](#), [r342](#), [r910](#), [r1118](#) and as a product in [r40](#), [r339](#), [r341](#), [r884](#), [r962](#) and as a modifier in [r33](#), [r340](#), [r342](#), [r910](#), [r1118](#)).

$$\frac{d}{dt}\text{RcL02UL} = v_{40} + v_{339} + v_{341} + v_{884} + v_{962} - v_{33} - v_{340} - v_{342} - v_{910} - v_{1118} \quad (3053)$$

8.55 Species RcL12UU

Name RcL12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r34](#), [r35](#), [r343](#), [r345](#), [r347](#), [r349](#), [r911](#), [r1119](#) and as a product in [r344](#), [r346](#), [r348](#), [r350](#), [r885](#), [r963](#) and as a modifier in [r34](#), [r35](#), [r343](#), [r345](#), [r347](#), [r349](#), [r911](#), [r1119](#)).

$$\begin{aligned} \frac{d}{dt}\text{RcL12UU} = & v_{344} + v_{346} + v_{348} + v_{350} + v_{885} + v_{963} - v_{34} \\ & - v_{35} - v_{343} - v_{345} - v_{347} - v_{349} - v_{911} - v_{1119} \end{aligned} \quad (3054)$$

8.56 Species RcL12CU

Name RcL12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in r36, r344, r351, r353, r912, r1120 and as a product in r343, r352, r354, r886, r964 and as a modifier in r36, r344, r351, r353, r912, r1120).

$$\begin{aligned} \frac{d}{dt}\text{RcL12CU} = & v_{343} + v_{352} + v_{354} + v_{886} + v_{964} - v_{36} \\ & - v_{344} - v_{351} - v_{353} - v_{912} - v_{1120} \end{aligned} \quad (3055)$$

8.57 Species RcL12LU

Name RcL12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in r37, r346, r352, r355, r357, r913, r1121 and as a product in r345, r351, r356, r358, r887, r965 and as a modifier in r37, r346, r352, r355, r357, r913, r1121).

$$\begin{aligned} \frac{d}{dt}\text{RcL12LU} = & v_{345} + v_{351} + v_{356} + v_{358} + v_{887} + v_{965} - v_{37} \\ & - v_{346} - v_{352} - v_{355} - v_{357} - v_{913} - v_{1121} \end{aligned} \quad (3056)$$

8.58 Species RcL12UG

Name RcL12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in r38, r39, r348, r359, r361, r363, r914, r1122 and as a product in r347, r360, r362, r364, r888, r966 and as a modifier in r38, r39, r348, r359, r361, r363, r914, r1122).

$$\begin{aligned} \frac{d}{dt}\text{RcL12UG} = & v_{347} + v_{360} + v_{362} + v_{364} + v_{888} + v_{966} - v_{38} \\ & - v_{39} - v_{348} - v_{359} - v_{361} - v_{363} - v_{914} - v_{1122} \end{aligned} \quad (3057)$$

8.59 Species RcL12UL

Name RcL12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r40](#), [r41](#), [r350](#), [r364](#), [r365](#), [r915](#), [r1123](#) and as a product in [r349](#), [r363](#), [r366](#), [r889](#), [r967](#) and as a modifier in [r40](#), [r41](#), [r350](#), [r364](#), [r365](#), [r915](#), [r1123](#)).

$$\begin{aligned} \frac{d}{dt} \text{RcL12UL} = & \textcolor{blue}{v_{349}} + \textcolor{blue}{v_{363}} + \textcolor{blue}{v_{366}} + \textcolor{blue}{v_{889}} + \textcolor{blue}{v_{967}} - \textcolor{blue}{v_{40}} \\ & - \textcolor{blue}{v_{41}} - \textcolor{blue}{v_{350}} - \textcolor{blue}{v_{364}} - \textcolor{blue}{v_{365}} - \textcolor{blue}{v_{915}} - \textcolor{blue}{v_{1123}} \end{aligned} \quad (3058)$$

8.60 Species RcL12CG

Name RcL12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r42](#), [r354](#), [r360](#), [r367](#), [r369](#), [r916](#), [r1124](#) and as a product in [r353](#), [r359](#), [r368](#), [r370](#), [r890](#), [r968](#) and as a modifier in [r42](#), [r354](#), [r360](#), [r367](#), [r369](#), [r916](#), [r1124](#)).

$$\begin{aligned} \frac{d}{dt} \text{RcL12CG} = & \textcolor{blue}{v_{353}} + \textcolor{blue}{v_{359}} + \textcolor{blue}{v_{368}} + \textcolor{blue}{v_{370}} + \textcolor{blue}{v_{890}} + \textcolor{blue}{v_{968}} - \textcolor{blue}{v_{42}} \\ & - \textcolor{blue}{v_{354}} - \textcolor{blue}{v_{360}} - \textcolor{blue}{v_{367}} - \textcolor{blue}{v_{369}} - \textcolor{blue}{v_{916}} - \textcolor{blue}{v_{1124}} \end{aligned} \quad (3059)$$

8.61 Species RcL12CC

Name RcL12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r43](#), [r358](#), [r366](#), [r368](#), [r917](#), [r1125](#) and as a product in [r357](#), [r365](#), [r367](#), [r891](#), [r969](#) and as a modifier in [r43](#), [r358](#), [r366](#), [r368](#), [r917](#), [r1125](#)).

$$\begin{aligned} \frac{d}{dt} \text{RcL12CC} = & \textcolor{blue}{v_{357}} + \textcolor{blue}{v_{365}} + \textcolor{blue}{v_{367}} + \textcolor{blue}{v_{891}} + \textcolor{blue}{v_{969}} - \textcolor{blue}{v_{43}} \\ & - \textcolor{blue}{v_{358}} - \textcolor{blue}{v_{366}} - \textcolor{blue}{v_{368}} - \textcolor{blue}{v_{917}} - \textcolor{blue}{v_{1125}} \end{aligned} \quad (3060)$$

8.62 Species RcL12LG

Name RcL12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r44](#), [r356](#), [r362](#), [r370](#), [r918](#), [r1126](#) and as a product in [r355](#), [r361](#), [r369](#), [r892](#), [r970](#) and as a modifier in [r44](#), [r356](#), [r362](#), [r370](#), [r918](#), [r1126](#)).

$$\begin{aligned} \frac{d}{dt} \text{RcL12LG} = & \textcolor{blue}{v_{355}} + \textcolor{blue}{v_{361}} + \textcolor{blue}{v_{369}} + \textcolor{blue}{v_{892}} + \textcolor{blue}{v_{970}} - \textcolor{blue}{v_{44}} \\ & - \textcolor{blue}{v_{356}} - \textcolor{blue}{v_{362}} - \textcolor{blue}{v_{370}} - \textcolor{blue}{v_{918}} - \textcolor{blue}{v_{1126}} \end{aligned} \quad (3061)$$

8.63 Species R00UU

Name R00UU

Initial concentration 0.0203784259126929 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r815](#), [r919](#), [r1231](#), [r1257](#), [r1439](#) and as a product in [r45](#), [r46](#), [r841](#), [r1075](#), [r1335](#), [r1387](#) and as a modifier in [r815](#), [r919](#), [r1231](#), [r1257](#), [r1439](#)).

$$\begin{aligned} \frac{d}{dt} \text{R00UU} = & \textcolor{blue}{v_{45}} + \textcolor{blue}{v_{46}} + \textcolor{blue}{v_{841}} + \textcolor{blue}{v_{1075}} + \textcolor{blue}{v_{1335}} + \textcolor{blue}{v_{1387}} \\ & - \textcolor{blue}{v_{815}} - \textcolor{blue}{v_{919}} - \textcolor{blue}{v_{1231}} - \textcolor{blue}{v_{1257}} - \textcolor{blue}{v_{1439}} \end{aligned} \quad (3062)$$

8.64 Species R10UU

Name R10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r45](#), [r371](#), [r373](#), [r816](#), [r920](#), [r1232](#), [r1258](#), [r1440](#) and as a product in [r48](#), [r372](#), [r374](#), [r842](#), [r1076](#), [r1336](#), [r1388](#) and as a modifier in [r45](#), [r371](#), [r373](#), [r816](#), [r920](#), [r1232](#), [r1258](#), [r1440](#)).

$$\begin{aligned} \frac{d}{dt} \text{R10UU} = & \textcolor{blue}{v_{48}} + \textcolor{blue}{v_{372}} + \textcolor{blue}{v_{374}} + \textcolor{blue}{v_{842}} + \textcolor{blue}{v_{1076}} + \textcolor{blue}{v_{1336}} + \textcolor{blue}{v_{1388}} - \textcolor{blue}{v_{45}} \\ & - \textcolor{blue}{v_{371}} - \textcolor{blue}{v_{373}} - \textcolor{blue}{v_{816}} - \textcolor{blue}{v_{920}} - \textcolor{blue}{v_{1232}} - \textcolor{blue}{v_{1258}} - \textcolor{blue}{v_{1440}} \end{aligned} \quad (3063)$$

8.65 Species R10CU

Name R10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r372](#), [r375](#), [r817](#), [r921](#), [r1233](#), [r1259](#), [r1441](#) and as a product in [r49](#), [r371](#), [r376](#), [r843](#), [r1077](#), [r1337](#), [r1389](#) and as a modifier in [r372](#), [r375](#), [r817](#), [r921](#), [r1233](#), [r1259](#), [r1441](#)).

$$\begin{aligned} \frac{d}{dt}R10CU = & v_{49} + v_{371} + v_{376} + v_{843} + v_{1077} + v_{1337} + v_{1389} \\ & - v_{372} - v_{375} - v_{817} - v_{921} - v_{1233} - v_{1259} - v_{1441} \end{aligned} \quad (3064)$$

8.66 Species R10LU

Name R10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r374](#), [r376](#), [r818](#), [r922](#), [r1234](#), [r1260](#), [r1442](#) and as a product in [r50](#), [r373](#), [r375](#), [r844](#), [r1078](#), [r1338](#), [r1390](#) and as a modifier in [r374](#), [r376](#), [r818](#), [r922](#), [r1234](#), [r1260](#), [r1442](#)).

$$\begin{aligned} \frac{d}{dt}R10LU = & v_{50} + v_{373} + v_{375} + v_{844} + v_{1078} + v_{1338} + v_{1390} \\ & - v_{374} - v_{376} - v_{818} - v_{922} - v_{1234} - v_{1260} - v_{1442} \end{aligned} \quad (3065)$$

8.67 Species R01UU

Name R01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r46](#), [r377](#), [r379](#), [r819](#), [r923](#), [r1235](#), [r1261](#), [r1443](#) and as a product in [r47](#), [r53](#), [r378](#), [r380](#), [r845](#), [r1079](#), [r1339](#), [r1391](#) and as a modifier in [r46](#), [r377](#), [r379](#), [r819](#), [r923](#), [r1235](#), [r1261](#), [r1443](#)).

$$\begin{aligned} \frac{d}{dt}R01UU = & v_{47} + v_{53} + v_{378} + v_{380} + v_{845} + v_{1079} + v_{1339} + v_{1391} \\ & - v_{46} - v_{377} - v_{379} - v_{819} - v_{923} - v_{1235} - v_{1261} - v_{1443} \end{aligned} \quad (3066)$$

8.68 Species R01UG

Name R01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r378](#), [r381](#), [r820](#), [r924](#), [r1236](#), [r1262](#), [r1444](#) and as a product in [r51](#), [r54](#), [r377](#), [r382](#), [r846](#), [r1080](#), [r1340](#), [r1392](#) and as a modifier in [r378](#), [r381](#), [r820](#), [r924](#), [r1236](#), [r1262](#), [r1444](#)).

$$\frac{d}{dt}R01UG = v_{51} + v_{54} + v_{377} + v_{382} + v_{846} + v_{1080} + v_{1340} + v_{1392} - v_{378} - v_{381} - v_{820} - v_{924} - v_{1236} - v_{1262} - v_{1444} \quad (3067)$$

8.69 Species R01UL

Name R01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r380](#), [r382](#), [r821](#), [r925](#), [r1237](#), [r1263](#), [r1445](#) and as a product in [r52](#), [r55](#), [r379](#), [r381](#), [r847](#), [r1081](#), [r1341](#), [r1393](#) and as a modifier in [r380](#), [r382](#), [r821](#), [r925](#), [r1237](#), [r1263](#), [r1445](#)).

$$\frac{d}{dt}R01UL = v_{52} + v_{55} + v_{379} + v_{381} + v_{847} + v_{1081} + v_{1341} + v_{1393} - v_{380} - v_{382} - v_{821} - v_{925} - v_{1237} - v_{1263} - v_{1445} \quad (3068)$$

8.70 Species R11UU

Name R11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 31 reactions (as a reactant in [r47](#), [r48](#), [r383](#), [r385](#), [r387](#), [r389](#), [r822](#), [r926](#), [r1238](#), [r1264](#), [r1446](#) and as a product in [r57](#), [r384](#), [r386](#), [r388](#), [r390](#), [r848](#), [r1082](#), [r1342](#), [r1394](#) and as a modifier in [r47](#), [r48](#), [r383](#), [r385](#), [r387](#), [r389](#), [r822](#), [r926](#), [r1238](#), [r1264](#), [r1446](#)).

$$\frac{d}{dt}R11UU = v_{57} + v_{384} + v_{386} + v_{388} + v_{390} + v_{848} + v_{1082} + v_{1342} + v_{1394} - v_{47} - v_{48} - v_{383} - v_{385} - v_{387} - v_{389} - v_{822} - v_{926} - v_{1238} - v_{1264} - v_{1446} \quad (3069)$$

8.71 Species R11CU

Name R11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in r49, r384, r391, r393, r823, r927, r1239, r1265, r1447 and as a product in r58, r383, r392, r394, r849, r1083, r1343, r1395 and as a modifier in r49, r384, r391, r393, r823, r927, r1239, r1265, r1447).

$$\frac{d}{dt}R11CU = v_{58} + v_{383} + v_{392} + v_{394} + v_{849} + v_{1083} + v_{1343} + v_{1395} - v_{49} - v_{384} - v_{391} - v_{393} - v_{823} - v_{927} - v_{1239} - v_{1265} - v_{1447} \quad (3070)$$

8.72 Species R11LU

Name R11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 29 reactions (as a reactant in r50, r386, r392, r395, r397, r824, r928, r1240, r1266, r1448 and as a product in r59, r385, r391, r396, r398, r850, r1084, r1344, r1396 and as a modifier in r50, r386, r392, r395, r397, r824, r928, r1240, r1266, r1448).

$$\frac{d}{dt}R11LU = v_{59} + v_{385} + v_{391} + v_{396} + v_{398} + v_{850} + v_{1084} + v_{1344} + v_{1396} - v_{50} - v_{386} - v_{392} - v_{395} - v_{397} - v_{824} - v_{928} - v_{1240} - v_{1266} - v_{1448} \quad (3071)$$

8.73 Species R11UG

Name R11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 29 reactions (as a reactant in r51, r388, r399, r401, r403, r825, r929, r1241, r1267, r1449 and as a product in r61, r387, r400, r402, r404, r851, r1085, r1345, r1397 and as a modifier in r51, r388, r399, r401, r403, r825, r929, r1241, r1267, r1449).

$$\frac{d}{dt}R11UG = v_{61} + v_{387} + v_{400} + v_{402} + v_{404} + v_{851} + v_{1085} + v_{1345} + v_{1397} - v_{51} - v_{388} - v_{399} - v_{401} - v_{403} - v_{825} - v_{929} - v_{1241} - v_{1267} - v_{1449} \quad (3072)$$

8.74 Species R11UL

Name R11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in [r52](#), [r390](#), [r404](#), [r405](#), [r826](#), [r930](#), [r1242](#), [r1268](#), [r1450](#) and as a product in [r63](#), [r389](#), [r403](#), [r406](#), [r852](#), [r1086](#), [r1346](#), [r1398](#) and as a modifier in [r52](#), [r390](#), [r404](#), [r405](#), [r826](#), [r930](#), [r1242](#), [r1268](#), [r1450](#)).

$$\frac{d}{dt}R11UL = v_{63} + v_{389} + v_{403} + v_{406} + v_{852} + v_{1086} + v_{1346} + v_{1398} - v_{52} - v_{390} - v_{404} - v_{405} - v_{826} - v_{930} - v_{1242} - v_{1268} - v_{1450} \quad (3073)$$

8.75 Species R11CG

Name R11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r394](#), [r400](#), [r407](#), [r409](#), [r827](#), [r931](#), [r1243](#), [r1269](#), [r1451](#) and as a product in [r64](#), [r393](#), [r399](#), [r408](#), [r410](#), [r853](#), [r1087](#), [r1347](#), [r1399](#) and as a modifier in [r394](#), [r400](#), [r407](#), [r409](#), [r827](#), [r931](#), [r1243](#), [r1269](#), [r1451](#)).

$$\frac{d}{dt}R11CG = v_{64} + v_{393} + v_{399} + v_{408} + v_{410} + v_{853} + v_{1087} + v_{1347} + v_{1399} - v_{394} - v_{400} - v_{407} - v_{409} - v_{827} - v_{931} - v_{1243} - v_{1269} - v_{1451} \quad (3074)$$

8.76 Species R11CC

Name R11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r398](#), [r406](#), [r408](#), [r828](#), [r932](#), [r1244](#), [r1270](#), [r1452](#) and as a product in [r65](#), [r397](#), [r405](#), [r407](#), [r854](#), [r1088](#), [r1348](#), [r1400](#) and as a modifier in [r398](#), [r406](#), [r408](#), [r828](#), [r932](#), [r1244](#), [r1270](#), [r1452](#)).

$$\frac{d}{dt}R11CC = v_{65} + v_{397} + v_{405} + v_{407} + v_{854} + v_{1088} + v_{1348} + v_{1400} - v_{398} - v_{406} - v_{408} - v_{828} - v_{932} - v_{1244} - v_{1270} - v_{1452} \quad (3075)$$

8.77 Species R11LG

Name R11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r396](#), [r402](#), [r410](#), [r829](#), [r933](#), [r1245](#), [r1271](#), [r1453](#) and as a product in [r66](#), [r395](#), [r401](#), [r409](#), [r855](#), [r1089](#), [r1349](#), [r1401](#) and as a modifier in [r396](#), [r402](#), [r410](#), [r829](#), [r933](#), [r1245](#), [r1271](#), [r1453](#)).

$$\begin{aligned} \frac{d}{dt}R11LG = & v_{66} + v_{395} + v_{401} + v_{409} + v_{855} + v_{1089} + v_{1349} + v_{1401} \\ & - v_{396} - v_{402} - v_{410} - v_{829} - v_{933} - v_{1245} - v_{1271} - v_{1453} \end{aligned} \quad (3076)$$

8.78 Species R02UU

Name R02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r53](#), [r411](#), [r413](#), [r830](#), [r934](#), [r1246](#), [r1272](#), [r1454](#) and as a product in [r56](#), [r412](#), [r414](#), [r856](#), [r1090](#), [r1350](#), [r1402](#) and as a modifier in [r53](#), [r411](#), [r413](#), [r830](#), [r934](#), [r1246](#), [r1272](#), [r1454](#)).

$$\begin{aligned} \frac{d}{dt}R02UU = & v_{56} + v_{412} + v_{414} + v_{856} + v_{1090} + v_{1350} + v_{1402} - v_{53} \\ & - v_{411} - v_{413} - v_{830} - v_{934} - v_{1246} - v_{1272} - v_{1454} \end{aligned} \quad (3077)$$

8.79 Species R02UG

Name R02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r54](#), [r412](#), [r415](#), [r831](#), [r935](#), [r1247](#), [r1273](#), [r1455](#) and as a product in [r60](#), [r411](#), [r416](#), [r857](#), [r1091](#), [r1351](#), [r1403](#) and as a modifier in [r54](#), [r412](#), [r415](#), [r831](#), [r935](#), [r1247](#), [r1273](#), [r1455](#)).

$$\begin{aligned} \frac{d}{dt}R02UG = & v_{60} + v_{411} + v_{416} + v_{857} + v_{1091} + v_{1351} + v_{1403} - v_{54} \\ & - v_{412} - v_{415} - v_{831} - v_{935} - v_{1247} - v_{1273} - v_{1455} \end{aligned} \quad (3078)$$

8.80 Species R02UL

Name R02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r55](#), [r414](#), [r416](#), [r832](#), [r936](#), [r1248](#), [r1274](#), [r1456](#) and as a product in [r62](#), [r413](#), [r415](#), [r858](#), [r1092](#), [r1352](#), [r1404](#) and as a modifier in [r55](#), [r414](#), [r416](#), [r832](#), [r936](#), [r1248](#), [r1274](#), [r1456](#)).

$$\frac{d}{dt}R02UL = v_{62} + v_{413} + v_{415} + v_{858} + v_{1092} + v_{1352} + v_{1404} - v_{55} - v_{414} - v_{416} - v_{832} - v_{936} - v_{1248} - v_{1274} - v_{1456} \quad (3079)$$

8.81 Species R12UU

Name R12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 30 reactions (as a reactant in [r56](#), [r57](#), [r417](#), [r419](#), [r421](#), [r423](#), [r833](#), [r937](#), [r1249](#), [r1275](#), [r1457](#) and as a product in [r418](#), [r420](#), [r422](#), [r424](#), [r859](#), [r1093](#), [r1353](#), [r1405](#) and as a modifier in [r56](#), [r57](#), [r417](#), [r419](#), [r421](#), [r423](#), [r833](#), [r937](#), [r1249](#), [r1275](#), [r1457](#)).

$$\frac{d}{dt}R12UU = v_{418} + v_{420} + v_{422} + v_{424} + v_{859} + v_{1093} + v_{1353} + v_{1405} - v_{56} - v_{57} - v_{417} - v_{419} - v_{421} - v_{423} - v_{833} - v_{937} - v_{1249} - v_{1275} - v_{1457} \quad (3080)$$

8.82 Species R12CU

Name R12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r58](#), [r418](#), [r425](#), [r427](#), [r834](#), [r938](#), [r1250](#), [r1276](#), [r1458](#) and as a product in [r417](#), [r426](#), [r428](#), [r860](#), [r1094](#), [r1354](#), [r1406](#) and as a modifier in [r58](#), [r418](#), [r425](#), [r427](#), [r834](#), [r938](#), [r1250](#), [r1276](#), [r1458](#)).

$$\frac{d}{dt}R12CU = v_{417} + v_{426} + v_{428} + v_{860} + v_{1094} + v_{1354} + v_{1406} - v_{58} - v_{418} - v_{425} - v_{427} - v_{834} - v_{938} - v_{1250} - v_{1276} - v_{1458} \quad (3081)$$

8.83 Species R12LU

Name R12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in [r59](#), [r420](#), [r426](#), [r429](#), [r431](#), [r835](#), [r939](#), [r1251](#), [r1277](#), [r1459](#) and as a product in [r419](#), [r425](#), [r430](#), [r432](#), [r861](#), [r1095](#), [r1355](#), [r1407](#) and as a modifier in [r59](#), [r420](#), [r426](#), [r429](#), [r431](#), [r835](#), [r939](#), [r1251](#), [r1277](#), [r1459](#)).

$$\frac{d}{dt}R12LU = v_{419} + v_{425} + v_{430} + v_{432} + v_{861} + v_{1095} + v_{1355} + v_{1407} - v_{59} - v_{420} - v_{426} - v_{429} - v_{431} - v_{835} - v_{939} - v_{1251} - v_{1277} - v_{1459} \quad (3082)$$

8.84 Species R12UG

Name R12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 30 reactions (as a reactant in [r60](#), [r61](#), [r422](#), [r433](#), [r435](#), [r437](#), [r836](#), [r940](#), [r1252](#), [r1278](#), [r1460](#) and as a product in [r421](#), [r434](#), [r436](#), [r438](#), [r862](#), [r1096](#), [r1356](#), [r1408](#) and as a modifier in [r60](#), [r61](#), [r422](#), [r433](#), [r435](#), [r437](#), [r836](#), [r940](#), [r1252](#), [r1278](#), [r1460](#)).

$$\frac{d}{dt}R12UG = v_{421} + v_{434} + v_{436} + v_{438} + v_{862} + v_{1096} + v_{1356} + v_{1408} - v_{60} - v_{61} - v_{422} - v_{433} - v_{435} - v_{437} - v_{836} - v_{940} - v_{1252} - v_{1278} - v_{1460} \quad (3083)$$

8.85 Species R12UL

Name R12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r62](#), [r63](#), [r424](#), [r438](#), [r439](#), [r837](#), [r941](#), [r1253](#), [r1279](#), [r1461](#) and as a product in [r423](#), [r437](#), [r440](#), [r863](#), [r1097](#), [r1357](#), [r1409](#) and as a modifier in [r62](#), [r63](#), [r424](#), [r438](#), [r439](#), [r837](#), [r941](#), [r1253](#), [r1279](#), [r1461](#)).

$$\frac{d}{dt}R12UL = v_{423} + v_{437} + v_{440} + v_{863} + v_{1097} + v_{1357} + v_{1409} - v_{62} - v_{63} - v_{424} - v_{438} - v_{439} - v_{837} - v_{941} - v_{1253} - v_{1279} - v_{1461} \quad (3084)$$

8.86 Species R12CG

Name R12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in [r64](#), [r428](#), [r434](#), [r441](#), [r443](#), [r838](#), [r942](#), [r1254](#), [r1280](#), [r1462](#) and as a product in [r427](#), [r433](#), [r442](#), [r444](#), [r864](#), [r1098](#), [r1358](#), [r1410](#) and as a modifier in [r64](#), [r428](#), [r434](#), [r441](#), [r443](#), [r838](#), [r942](#), [r1254](#), [r1280](#), [r1462](#)).

$$\frac{d}{dt}R12CG = v_{427} + v_{433} + v_{442} + v_{444} + v_{864} + v_{1098} + v_{1358} + v_{1410} - v_{64} \quad (3085)$$
$$- v_{428} - v_{434} - v_{441} - v_{443} - v_{838} - v_{942} - v_{1254} - v_{1280} - v_{1462}$$

8.87 Species R12CC

Name R12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r65](#), [r432](#), [r440](#), [r442](#), [r839](#), [r943](#), [r1255](#), [r1281](#), [r1463](#) and as a product in [r431](#), [r439](#), [r441](#), [r865](#), [r1099](#), [r1359](#), [r1411](#) and as a modifier in [r65](#), [r432](#), [r440](#), [r442](#), [r839](#), [r943](#), [r1255](#), [r1281](#), [r1463](#)).

$$\frac{d}{dt}R12CC = v_{431} + v_{439} + v_{441} + v_{865} + v_{1099} + v_{1359} + v_{1411} - v_{65} \quad (3086)$$
$$- v_{432} - v_{440} - v_{442} - v_{839} - v_{943} - v_{1255} - v_{1281} - v_{1463}$$

8.88 Species R12LG

Name R12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r66](#), [r430](#), [r436](#), [r444](#), [r840](#), [r944](#), [r1256](#), [r1282](#), [r1464](#) and as a product in [r429](#), [r435](#), [r443](#), [r866](#), [r1100](#), [r1360](#), [r1412](#) and as a modifier in [r66](#), [r430](#), [r436](#), [r444](#), [r840](#), [r944](#), [r1256](#), [r1282](#), [r1464](#)).

$$\frac{d}{dt}R12LG = v_{429} + v_{435} + v_{443} + v_{866} + v_{1100} + v_{1360} + v_{1412} - v_{66} \quad (3087)$$
$$- v_{430} - v_{436} - v_{444} - v_{840} - v_{944} - v_{1256} - v_{1282} - v_{1464}$$

8.89 Species RL00UU

Name RL00UU

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r867](#), [r1075](#), [r1283](#), [r1309](#), [r1465](#) and as a product in [r67](#), [r68](#), [r893](#), [r919](#), [r1361](#), [r1413](#) and as a modifier in [r867](#), [r1075](#), [r1283](#), [r1309](#), [r1465](#)).

$$\frac{d}{dt}RL00UU = v_{67} + v_{68} + v_{893} + v_{919} + v_{1361} + v_{1413} - v_{867} - v_{1075} - v_{1283} - v_{1309} - v_{1465} \quad (3088)$$

8.90 Species RL10UU

Name RL10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r67](#), [r445](#), [r447](#), [r868](#), [r1076](#), [r1284](#), [r1310](#), [r1466](#) and as a product in [r70](#), [r446](#), [r448](#), [r894](#), [r920](#), [r1362](#), [r1414](#) and as a modifier in [r67](#), [r445](#), [r447](#), [r868](#), [r1076](#), [r1284](#), [r1310](#), [r1466](#)).

$$\frac{d}{dt}RL10UU = v_{70} + v_{446} + v_{448} + v_{894} + v_{920} + v_{1362} + v_{1414} - v_{67} - v_{445} - v_{447} - v_{868} - v_{1076} - v_{1284} - v_{1310} - v_{1466} \quad (3089)$$

8.91 Species RL10CU

Name RL10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r446](#), [r449](#), [r869](#), [r1077](#), [r1285](#), [r1311](#), [r1467](#) and as a product in [r71](#), [r445](#), [r450](#), [r895](#), [r921](#), [r1363](#), [r1415](#) and as a modifier in [r446](#), [r449](#), [r869](#), [r1077](#), [r1285](#), [r1311](#), [r1467](#)).

$$\frac{d}{dt}RL10CU = v_{71} + v_{445} + v_{450} + v_{895} + v_{921} + v_{1363} + v_{1415} - v_{446} - v_{449} - v_{869} - v_{1077} - v_{1285} - v_{1311} - v_{1467} \quad (3090)$$

8.92 Species RL10LU

Name RL10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r448](#), [r450](#), [r870](#), [r1078](#), [r1286](#), [r1312](#), [r1468](#) and as a product in [r72](#), [r447](#), [r449](#), [r896](#), [r922](#), [r1364](#), [r1416](#) and as a modifier in [r448](#), [r450](#), [r870](#), [r1078](#), [r1286](#), [r1312](#), [r1468](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL10LU} = & v_{72} + v_{447} + v_{449} + v_{896} + v_{922} + v_{1364} + v_{1416} \\ & - v_{448} - v_{450} - v_{870} - v_{1078} - v_{1286} - v_{1312} - v_{1468} \end{aligned} \quad (3091)$$

8.93 Species RL01UU

Name RL01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r68](#), [r451](#), [r453](#), [r871](#), [r1079](#), [r1287](#), [r1313](#), [r1469](#) and as a product in [r69](#), [r75](#), [r452](#), [r454](#), [r897](#), [r923](#), [r1365](#), [r1417](#) and as a modifier in [r68](#), [r451](#), [r453](#), [r871](#), [r1079](#), [r1287](#), [r1313](#), [r1469](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL01UU} = & v_{69} + v_{75} + v_{452} + v_{454} + v_{897} + v_{923} + v_{1365} + v_{1417} \\ & - v_{68} - v_{451} - v_{453} - v_{871} - v_{1079} - v_{1287} - v_{1313} - v_{1469} \end{aligned} \quad (3092)$$

8.94 Species RL01UG

Name RL01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r452](#), [r455](#), [r872](#), [r1080](#), [r1288](#), [r1314](#), [r1470](#) and as a product in [r73](#), [r76](#), [r451](#), [r456](#), [r898](#), [r924](#), [r1366](#), [r1418](#) and as a modifier in [r452](#), [r455](#), [r872](#), [r1080](#), [r1288](#), [r1314](#), [r1470](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL01UG} = & v_{73} + v_{76} + v_{451} + v_{456} + v_{898} + v_{924} + v_{1366} + v_{1418} \\ & - v_{452} - v_{455} - v_{872} - v_{1080} - v_{1288} - v_{1314} - v_{1470} \end{aligned} \quad (3093)$$

8.95 Species RL01UL

Name RL01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r454](#), [r456](#), [r873](#), [r1081](#), [r1289](#), [r1315](#), [r1471](#) and as a product in [r74](#), [r77](#), [r453](#), [r455](#), [r899](#), [r925](#), [r1367](#), [r1419](#) and as a modifier in [r454](#), [r456](#), [r873](#), [r1081](#), [r1289](#), [r1315](#), [r1471](#)).

$$\frac{d}{dt}RL01UL = v_{74} + v_{77} + v_{453} + v_{455} + v_{899} + v_{925} + v_{1367} + v_{1419} - v_{454} - v_{456} - v_{873} - v_{1081} - v_{1289} - v_{1315} - v_{1471} \quad (3094)$$

8.96 Species RL11UU

Name RL11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 31 reactions (as a reactant in [r69](#), [r70](#), [r457](#), [r459](#), [r461](#), [r463](#), [r874](#), [r1082](#), [r1290](#), [r1316](#), [r1472](#) and as a product in [r79](#), [r458](#), [r460](#), [r462](#), [r464](#), [r900](#), [r926](#), [r1368](#), [r1420](#) and as a modifier in [r69](#), [r70](#), [r457](#), [r459](#), [r461](#), [r463](#), [r874](#), [r1082](#), [r1290](#), [r1316](#), [r1472](#)).

$$\frac{d}{dt}RL11UU = v_{79} + v_{458} + v_{460} + v_{462} + v_{464} + v_{900} + v_{926} + v_{1368} + v_{1420} - v_{69} - v_{70} - v_{457} - v_{459} - v_{461} - v_{463} - v_{874} - v_{1082} - v_{1290} - v_{1316} - v_{1472} \quad (3095)$$

8.97 Species RL11CU

Name RL11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in [r71](#), [r458](#), [r465](#), [r467](#), [r875](#), [r1083](#), [r1291](#), [r1317](#), [r1473](#) and as a product in [r80](#), [r457](#), [r466](#), [r468](#), [r901](#), [r927](#), [r1369](#), [r1421](#) and as a modifier in [r71](#), [r458](#), [r465](#), [r467](#), [r875](#), [r1083](#), [r1291](#), [r1317](#), [r1473](#)).

$$\frac{d}{dt}RL11CU = v_{80} + v_{457} + v_{466} + v_{468} + v_{901} + v_{927} + v_{1369} + v_{1421} - v_{71} - v_{458} - v_{465} - v_{467} - v_{875} - v_{1083} - v_{1291} - v_{1317} - v_{1473} \quad (3096)$$

8.98 Species RL11LU

Name RL11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 29 reactions (as a reactant in [r72](#), [r460](#), [r466](#), [r469](#), [r471](#), [r876](#), [r1084](#), [r1292](#), [r1318](#), [r1474](#) and as a product in [r81](#), [r459](#), [r465](#), [r470](#), [r472](#), [r902](#), [r928](#), [r1370](#), [r1422](#) and as a modifier in [r72](#), [r460](#), [r466](#), [r469](#), [r471](#), [r876](#), [r1084](#), [r1292](#), [r1318](#), [r1474](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL11LU} = & v_{81} + v_{459} + v_{465} + v_{470} + v_{472} + v_{902} + v_{928} + v_{1370} + v_{1422} - v_{72} \\ & - v_{460} - v_{466} - v_{469} - v_{471} - v_{876} - v_{1084} - v_{1292} - v_{1318} - v_{1474} \end{aligned} \quad (3097)$$

8.99 Species RL11UG

Name RL11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 29 reactions (as a reactant in [r73](#), [r462](#), [r473](#), [r475](#), [r477](#), [r877](#), [r1085](#), [r1293](#), [r1319](#), [r1475](#) and as a product in [r83](#), [r461](#), [r474](#), [r476](#), [r478](#), [r903](#), [r929](#), [r1371](#), [r1423](#) and as a modifier in [r73](#), [r462](#), [r473](#), [r475](#), [r477](#), [r877](#), [r1085](#), [r1293](#), [r1319](#), [r1475](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL11UG} = & v_{83} + v_{461} + v_{474} + v_{476} + v_{478} + v_{903} + v_{929} + v_{1371} + v_{1423} - v_{73} \\ & - v_{462} - v_{473} - v_{475} - v_{477} - v_{877} - v_{1085} - v_{1293} - v_{1319} - v_{1475} \end{aligned} \quad (3098)$$

8.100 Species RL11UL

Name RL11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in [r74](#), [r464](#), [r478](#), [r479](#), [r878](#), [r1086](#), [r1294](#), [r1320](#), [r1476](#) and as a product in [r85](#), [r463](#), [r477](#), [r480](#), [r904](#), [r930](#), [r1372](#), [r1424](#) and as a modifier in [r74](#), [r464](#), [r478](#), [r479](#), [r878](#), [r1086](#), [r1294](#), [r1320](#), [r1476](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL11UL} = & v_{85} + v_{463} + v_{477} + v_{480} + v_{904} + v_{930} + v_{1372} + v_{1424} - v_{74} \\ & - v_{464} - v_{478} - v_{479} - v_{878} - v_{1086} - v_{1294} - v_{1320} - v_{1476} \end{aligned} \quad (3099)$$

8.101 Species RL11CG

Name RL11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r468](#), [r474](#), [r481](#), [r483](#), [r879](#), [r1087](#), [r1295](#), [r1321](#), [r1477](#) and as a product in [r86](#), [r467](#), [r473](#), [r482](#), [r484](#), [r905](#), [r931](#), [r1373](#), [r1425](#) and as a modifier in [r468](#), [r474](#), [r481](#), [r483](#), [r879](#), [r1087](#), [r1295](#), [r1321](#), [r1477](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL11CG} = & v_{86} + v_{467} + v_{473} + v_{482} + v_{484} + v_{905} + v_{931} + v_{1373} + v_{1425} \\ & - v_{468} - v_{474} - v_{481} - v_{483} - v_{879} - v_{1087} - v_{1295} - v_{1321} - v_{1477} \end{aligned} \quad (3100)$$

8.102 Species RL11CC

Name RL11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r472](#), [r480](#), [r482](#), [r880](#), [r1088](#), [r1296](#), [r1322](#), [r1478](#) and as a product in [r87](#), [r471](#), [r479](#), [r481](#), [r906](#), [r932](#), [r1374](#), [r1426](#) and as a modifier in [r472](#), [r480](#), [r482](#), [r880](#), [r1088](#), [r1296](#), [r1322](#), [r1478](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL11CC} = & v_{87} + v_{471} + v_{479} + v_{481} + v_{906} + v_{932} + v_{1374} + v_{1426} \\ & - v_{472} - v_{480} - v_{482} - v_{880} - v_{1088} - v_{1296} - v_{1322} - v_{1478} \end{aligned} \quad (3101)$$

8.103 Species RL11LG

Name RL11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r470](#), [r476](#), [r484](#), [r881](#), [r1089](#), [r1297](#), [r1323](#), [r1479](#) and as a product in [r88](#), [r469](#), [r475](#), [r483](#), [r907](#), [r933](#), [r1375](#), [r1427](#) and as a modifier in [r470](#), [r476](#), [r484](#), [r881](#), [r1089](#), [r1297](#), [r1323](#), [r1479](#)).

$$\begin{aligned} \frac{d}{dt} \text{RL11LG} = & v_{88} + v_{469} + v_{475} + v_{483} + v_{907} + v_{933} + v_{1375} + v_{1427} \\ & - v_{470} - v_{476} - v_{484} - v_{881} - v_{1089} - v_{1297} - v_{1323} - v_{1479} \end{aligned} \quad (3102)$$

8.104 Species RL02UU

Name RL02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r75](#), [r485](#), [r487](#), [r882](#), [r1090](#), [r1298](#), [r1324](#), [r1480](#) and as a product in [r78](#), [r486](#), [r488](#), [r908](#), [r934](#), [r1376](#), [r1428](#) and as a modifier in [r75](#), [r485](#), [r487](#), [r882](#), [r1090](#), [r1298](#), [r1324](#), [r1480](#)).

$$\frac{d}{dt}\text{RL02UU} = v_{78} + v_{486} + v_{488} + v_{908} + v_{934} + v_{1376} + v_{1428} - v_{75} - v_{485} - v_{487} - v_{882} - v_{1090} - v_{1298} - v_{1324} - v_{1480} \quad (3103)$$

8.105 Species RL02UG

Name RL02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r76](#), [r486](#), [r489](#), [r883](#), [r1091](#), [r1299](#), [r1325](#), [r1481](#) and as a product in [r82](#), [r485](#), [r490](#), [r909](#), [r935](#), [r1377](#), [r1429](#) and as a modifier in [r76](#), [r486](#), [r489](#), [r883](#), [r1091](#), [r1299](#), [r1325](#), [r1481](#)).

$$\frac{d}{dt}\text{RL02UG} = v_{82} + v_{485} + v_{490} + v_{909} + v_{935} + v_{1377} + v_{1429} - v_{76} - v_{486} - v_{489} - v_{883} - v_{1091} - v_{1299} - v_{1325} - v_{1481} \quad (3104)$$

8.106 Species RL02UL

Name RL02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r77](#), [r488](#), [r490](#), [r884](#), [r1092](#), [r1300](#), [r1326](#), [r1482](#) and as a product in [r84](#), [r487](#), [r489](#), [r910](#), [r936](#), [r1378](#), [r1430](#) and as a modifier in [r77](#), [r488](#), [r490](#), [r884](#), [r1092](#), [r1300](#), [r1326](#), [r1482](#)).

$$\frac{d}{dt}\text{RL02UL} = v_{84} + v_{487} + v_{489} + v_{910} + v_{936} + v_{1378} + v_{1430} - v_{77} - v_{488} - v_{490} - v_{884} - v_{1092} - v_{1300} - v_{1326} - v_{1482} \quad (3105)$$

8.107 Species RL12UU

Name RL12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 30 reactions (as a reactant in r78, r79, r491, r493, r495, r497, r885, r1093, r1301, r1327, r1483 and as a product in r492, r494, r496, r498, r911, r937, r1379, r1431 and as a modifier in r78, r79, r491, r493, r495, r497, r885, r1093, r1301, r1327, r1483).

$$\begin{aligned} \frac{d}{dt} \text{RL12UU} = & v_{492} + v_{494} + v_{496} + v_{498} + v_{911} + v_{937} + v_{1379} + v_{1431} - v_{78} - v_{79} \\ & - v_{491} - v_{493} - v_{495} - v_{497} - v_{885} - v_{1093} - v_{1301} - v_{1327} - v_{1483} \end{aligned} \quad (3106)$$

8.108 Species RL12CU

Name RL12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in r80, r492, r499, r501, r886, r1094, r1302, r1328, r1484 and as a product in r491, r500, r502, r912, r938, r1380, r1432 and as a modifier in r80, r492, r499, r501, r886, r1094, r1302, r1328, r1484).

$$\begin{aligned} \frac{d}{dt} \text{RL12CU} = & v_{491} + v_{500} + v_{502} + v_{912} + v_{938} + v_{1380} + v_{1432} - v_{80} \\ & - v_{492} - v_{499} - v_{501} - v_{886} - v_{1094} - v_{1302} - v_{1328} - v_{1484} \end{aligned} \quad (3107)$$

8.109 Species RL12LU

Name RL12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in r81, r494, r500, r503, r505, r887, r1095, r1303, r1329, r1485 and as a product in r493, r499, r504, r506, r913, r939, r1381, r1433 and as a modifier in r81, r494, r500, r503, r505, r887, r1095, r1303, r1329, r1485).

$$\begin{aligned} \frac{d}{dt} \text{RL12LU} = & v_{493} + v_{499} + v_{504} + v_{506} + v_{913} + v_{939} + v_{1381} + v_{1433} - v_{81} \\ & - v_{494} - v_{500} - v_{503} - v_{505} - v_{887} - v_{1095} - v_{1303} - v_{1329} - v_{1485} \end{aligned} \quad (3108)$$

8.110 Species RL12UG

Name RL12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 30 reactions (as a reactant in r82, r83, r496, r507, r509, r511, r888, r1096, r1304, r1330, r1486 and as a product in r495, r508, r510, r512, r914, r940, r1382, r1434 and as a modifier in r82, r83, r496, r507, r509, r511, r888, r1096, r1304, r1330, r1486).

$$\begin{aligned} \frac{d}{dt} \text{RL12UG} = & v_{495} + v_{508} + v_{510} + v_{512} + v_{914} + v_{940} + v_{1382} + v_{1434} - v_{82} - v_{83} \\ & - v_{496} - v_{507} - v_{509} - v_{511} - v_{888} - v_{1096} - v_{1304} - v_{1330} - v_{1486} \end{aligned} \quad (3109)$$

8.111 Species RL12UL

Name RL12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in r84, r85, r498, r512, r513, r889, r1097, r1305, r1331, r1487 and as a product in r497, r511, r514, r915, r941, r1383, r1435 and as a modifier in r84, r85, r498, r512, r513, r889, r1097, r1305, r1331, r1487).

$$\begin{aligned} \frac{d}{dt} \text{RL12UL} = & v_{497} + v_{511} + v_{514} + v_{915} + v_{941} + v_{1383} + v_{1435} - v_{84} - v_{85} \\ & - v_{498} - v_{512} - v_{513} - v_{889} - v_{1097} - v_{1305} - v_{1331} - v_{1487} \end{aligned} \quad (3110)$$

8.112 Species RL12CG

Name RL12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in r86, r502, r508, r515, r517, r890, r1098, r1306, r1332, r1488 and as a product in r501, r507, r516, r518, r916, r942, r1384, r1436 and as a modifier in r86, r502, r508, r515, r517, r890, r1098, r1306, r1332, r1488).

$$\begin{aligned} \frac{d}{dt} \text{RL12CG} = & v_{501} + v_{507} + v_{516} + v_{518} + v_{916} + v_{942} + v_{1384} + v_{1436} - v_{86} \\ & - v_{502} - v_{508} - v_{515} - v_{517} - v_{890} - v_{1098} - v_{1306} - v_{1332} - v_{1488} \end{aligned} \quad (3111)$$

8.113 Species RL12CC

Name RL12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in r87, r506, r514, r516, r891, r1099, r1307, r1333, r1489 and as a product in r505, r513, r515, r917, r943, r1385, r1437 and as a modifier in r87, r506, r514, r516, r891, r1099, r1307, r1333, r1489).

$$\frac{d}{dt}RL12CC = v_{505} + v_{513} + v_{515} + v_{917} + v_{943} + v_{1385} + v_{1437} - v_{87} - v_{506} - v_{514} - v_{516} - v_{891} - v_{1099} - v_{1307} - v_{1333} - v_{1489} \quad (3112)$$

8.114 Species RL12LG

Name RL12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in r88, r504, r510, r518, r892, r1100, r1308, r1334, r1490 and as a product in r503, r509, r517, r918, r944, r1386, r1438 and as a modifier in r88, r504, r510, r518, r892, r1100, r1308, r1334, r1490).

$$\frac{d}{dt}RL12LG = v_{503} + v_{509} + v_{517} + v_{918} + v_{944} + v_{1386} + v_{1438} - v_{88} - v_{504} - v_{510} - v_{518} - v_{892} - v_{1100} - v_{1308} - v_{1334} - v_{1490} \quad (3113)$$

8.115 Species Di00UU

Name Di00UU

Initial concentration 0.157511944881135 mol · l⁻¹

This species takes part in twelve reactions (as a reactant in r971, r997, r1335 and as a product in r89, r90, r1179, r1205, r1231, r1439 and as a modifier in r971, r997, r1335).

$$\frac{d}{dt}Di00UU = v_{89} + v_{90} + v_{1179} + v_{1205} + v_{1231} + v_{1439} - v_{971} - v_{997} - v_{1335} \quad (3114)$$

8.116 Species Di10UU

Name Di10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r89](#), [r519](#), [r521](#), [r972](#), [r998](#), [r1336](#) and as a product in [r92](#), [r520](#), [r522](#), [r1180](#), [r1206](#), [r1232](#), [r1440](#) and as a modifier in [r89](#), [r519](#), [r521](#), [r972](#), [r998](#), [r1336](#)).

$$\frac{d}{dt}\text{Di10UU} = v_{92} + v_{520} + v_{522} + v_{1180} + v_{1206} + v_{1232} + v_{1440} - v_{89} - v_{519} - v_{521} - v_{972} - v_{998} - v_{1336} \quad (3115)$$

8.117 Species Di10CU

Name Di10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r520](#), [r523](#), [r973](#), [r999](#), [r1337](#) and as a product in [r93](#), [r519](#), [r524](#), [r1181](#), [r1207](#), [r1233](#), [r1441](#) and as a modifier in [r520](#), [r523](#), [r973](#), [r999](#), [r1337](#)).

$$\frac{d}{dt}\text{Di10CU} = v_{93} + v_{519} + v_{524} + v_{1181} + v_{1207} + v_{1233} + v_{1441} - v_{520} - v_{523} - v_{973} - v_{999} - v_{1337} \quad (3116)$$

8.118 Species Di10LU

Name Di10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r522](#), [r524](#), [r974](#), [r1000](#), [r1338](#) and as a product in [r94](#), [r521](#), [r523](#), [r1182](#), [r1208](#), [r1234](#), [r1442](#) and as a modifier in [r522](#), [r524](#), [r974](#), [r1000](#), [r1338](#)).

$$\frac{d}{dt}\text{Di10LU} = v_{94} + v_{521} + v_{523} + v_{1182} + v_{1208} + v_{1234} + v_{1442} - v_{522} - v_{524} - v_{974} - v_{1000} - v_{1338} \quad (3117)$$

8.119 Species Di01UU

Name Di01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r90](#), [r525](#), [r527](#), [r975](#), [r1001](#), [r1339](#) and as a product in [r91](#), [r97](#), [r526](#), [r528](#), [r1183](#), [r1209](#), [r1235](#), [r1443](#) and as a modifier in [r90](#), [r525](#), [r527](#), [r975](#), [r1001](#), [r1339](#)).

$$\frac{d}{dt}\text{Di01UU} = v_{91} + v_{97} + v_{526} + v_{528} + v_{1183} + v_{1209} + v_{1235} + v_{1443} - v_{90} - v_{525} - v_{527} - v_{975} - v_{1001} - v_{1339} \quad (3118)$$

8.120 Species Di01UG

Name Di01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r526](#), [r529](#), [r976](#), [r1002](#), [r1340](#) and as a product in [r95](#), [r98](#), [r525](#), [r530](#), [r1184](#), [r1210](#), [r1236](#), [r1444](#) and as a modifier in [r526](#), [r529](#), [r976](#), [r1002](#), [r1340](#)).

$$\begin{aligned} \frac{d}{dt}\text{Di01UG} = & v_{95} + v_{98} + v_{525} + v_{530} + v_{1184} + v_{1210} + v_{1236} \\ & + v_{1444} - v_{526} - v_{529} - v_{976} - v_{1002} - v_{1340} \end{aligned} \quad (3119)$$

8.121 Species Di01UL

Name Di01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r528](#), [r530](#), [r977](#), [r1003](#), [r1341](#) and as a product in [r96](#), [r99](#), [r527](#), [r529](#), [r1185](#), [r1211](#), [r1237](#), [r1445](#) and as a modifier in [r528](#), [r530](#), [r977](#), [r1003](#), [r1341](#)).

$$\begin{aligned} \frac{d}{dt}\text{Di01UL} = & v_{96} + v_{99} + v_{527} + v_{529} + v_{1185} + v_{1211} + v_{1237} \\ & + v_{1445} - v_{528} - v_{530} - v_{977} - v_{1003} - v_{1341} \end{aligned} \quad (3120)$$

8.122 Species Di11UU

Name Di11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r91](#), [r92](#), [r531](#), [r533](#), [r535](#), [r537](#), [r978](#), [r1004](#), [r1342](#) and as a product in [r101](#), [r532](#), [r534](#), [r536](#), [r538](#), [r1186](#), [r1212](#), [r1238](#), [r1446](#) and as a modifier in [r91](#), [r92](#), [r531](#), [r533](#), [r535](#), [r537](#), [r978](#), [r1004](#), [r1342](#)).

$$\begin{aligned} \frac{d}{dt}\text{Di11UU} = & v_{101} + v_{532} + v_{534} + v_{536} + v_{538} + v_{1186} + v_{1212} + v_{1238} + v_{1446} \\ & - v_{91} - v_{92} - v_{531} - v_{533} - v_{535} - v_{537} - v_{978} - v_{1004} - v_{1342} \end{aligned} \quad (3121)$$

8.123 Species Di11CU

Name Di11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r93](#), [r532](#), [r539](#), [r541](#), [r979](#), [r1005](#), [r1343](#) and as a product in [r102](#), [r531](#), [r540](#), [r542](#), [r1187](#), [r1213](#), [r1239](#), [r1447](#) and as a modifier in [r93](#), [r532](#), [r539](#), [r541](#), [r979](#), [r1005](#), [r1343](#)).

$$\frac{d}{dt}\text{Di11CU} = v_{102} + v_{531} + v_{540} + v_{542} + v_{1187} + v_{1213} + v_{1239} + v_{1447} - v_{93} - v_{532} - v_{539} - v_{541} - v_{979} - v_{1005} - v_{1343} \quad (3122)$$

8.124 Species Di11LU

Name Di11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r94](#), [r534](#), [r540](#), [r543](#), [r545](#), [r980](#), [r1006](#), [r1344](#) and as a product in [r103](#), [r533](#), [r539](#), [r544](#), [r546](#), [r1188](#), [r1214](#), [r1240](#), [r1448](#) and as a modifier in [r94](#), [r534](#), [r540](#), [r543](#), [r545](#), [r980](#), [r1006](#), [r1344](#)).

$$\frac{d}{dt}\text{Di11LU} = v_{103} + v_{533} + v_{539} + v_{544} + v_{546} + v_{1188} + v_{1214} + v_{1240} + v_{1448} - v_{94} - v_{534} - v_{540} - v_{543} - v_{545} - v_{980} - v_{1006} - v_{1344} \quad (3123)$$

8.125 Species Di11UG

Name Di11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r95](#), [r536](#), [r547](#), [r549](#), [r551](#), [r981](#), [r1007](#), [r1345](#) and as a product in [r105](#), [r535](#), [r548](#), [r550](#), [r552](#), [r1189](#), [r1215](#), [r1241](#), [r1449](#) and as a modifier in [r95](#), [r536](#), [r547](#), [r549](#), [r551](#), [r981](#), [r1007](#), [r1345](#)).

$$\frac{d}{dt}\text{Di11UG} = v_{105} + v_{535} + v_{548} + v_{550} + v_{552} + v_{1189} + v_{1215} + v_{1241} + v_{1449} - v_{95} - v_{536} - v_{547} - v_{549} - v_{551} - v_{981} - v_{1007} - v_{1345} \quad (3124)$$

8.126 Species Di11UL

Name Di11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r96](#), [r538](#), [r552](#), [r553](#), [r982](#), [r1008](#), [r1346](#) and as a product in [r107](#), [r537](#), [r551](#), [r554](#), [r1190](#), [r1216](#), [r1242](#), [r1450](#) and as a modifier in [r96](#), [r538](#), [r552](#), [r553](#), [r982](#), [r1008](#), [r1346](#)).

$$\frac{d}{dt}\text{Di11UL} = v_{107} + v_{537} + v_{551} + v_{554} + v_{1190} + v_{1216} + v_{1242} + v_{1450} - v_{96} - v_{538} - v_{552} - v_{553} - v_{982} - v_{1008} - v_{1346} \quad (3125)$$

8.127 Species Di11CG

Name Di11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r542](#), [r548](#), [r555](#), [r557](#), [r983](#), [r1009](#), [r1347](#) and as a product in [r108](#), [r541](#), [r547](#), [r556](#), [r558](#), [r1191](#), [r1217](#), [r1243](#), [r1451](#) and as a modifier in [r542](#), [r548](#), [r555](#), [r557](#), [r983](#), [r1009](#), [r1347](#)).

$$\frac{d}{dt}\text{Di11CG} = v_{108} + v_{541} + v_{547} + v_{556} + v_{558} + v_{1191} + v_{1217} + v_{1243} + v_{1451} - v_{542} - v_{548} - v_{555} - v_{557} - v_{983} - v_{1009} - v_{1347} \quad (3126)$$

8.128 Species Di11CC

Name Di11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r546](#), [r554](#), [r556](#), [r984](#), [r1010](#), [r1348](#) and as a product in [r109](#), [r545](#), [r553](#), [r555](#), [r1192](#), [r1218](#), [r1244](#), [r1452](#) and as a modifier in [r546](#), [r554](#), [r556](#), [r984](#), [r1010](#), [r1348](#)).

$$\frac{d}{dt}\text{Di11CC} = v_{109} + v_{545} + v_{553} + v_{555} + v_{1192} + v_{1218} + v_{1244} + v_{1452} - v_{546} - v_{554} - v_{556} - v_{984} - v_{1010} - v_{1348} \quad (3127)$$

8.129 Species Di11LG

Name Di11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r544](#), [r550](#), [r558](#), [r985](#), [r1011](#), [r1349](#) and as a product in [r110](#), [r543](#), [r549](#), [r557](#), [r1193](#), [r1219](#), [r1245](#), [r1453](#) and as a modifier in [r544](#), [r550](#), [r558](#), [r985](#), [r1011](#), [r1349](#)).

$$\frac{d}{dt}\text{Di11LG} = v_{110} + v_{543} + v_{549} + v_{557} + v_{1193} + v_{1219} + v_{1245} + v_{1453} - v_{544} - v_{550} - v_{558} - v_{985} - v_{1011} - v_{1349} \quad (3128)$$

8.130 Species Di02UU

Name Di02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r97](#), [r559](#), [r561](#), [r986](#), [r1012](#), [r1350](#) and as a product in [r100](#), [r560](#), [r562](#), [r1194](#), [r1220](#), [r1246](#), [r1454](#) and as a modifier in [r97](#), [r559](#), [r561](#), [r986](#), [r1012](#), [r1350](#)).

$$\frac{d}{dt}\text{Di02UU} = v_{100} + v_{560} + v_{562} + v_{1194} + v_{1220} + v_{1246} + v_{1454} - v_{97} - v_{559} - v_{561} - v_{986} - v_{1012} - v_{1350} \quad (3129)$$

8.131 Species Di02UG

Name Di02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r98](#), [r560](#), [r563](#), [r987](#), [r1013](#), [r1351](#) and as a product in [r104](#), [r559](#), [r564](#), [r1195](#), [r1221](#), [r1247](#), [r1455](#) and as a modifier in [r98](#), [r560](#), [r563](#), [r987](#), [r1013](#), [r1351](#)).

$$\frac{d}{dt}\text{Di02UG} = v_{104} + v_{559} + v_{564} + v_{1195} + v_{1221} + v_{1247} + v_{1455} - v_{98} - v_{560} - v_{563} - v_{987} - v_{1013} - v_{1351} \quad (3130)$$

8.132 Species DiO2UL

Name DiO2UL

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r99](#), [r562](#), [r564](#), [r988](#), [r1014](#), [r1352](#) and as a product in [r106](#), [r561](#), [r563](#), [r1196](#), [r1222](#), [r1248](#), [r1456](#) and as a modifier in [r99](#), [r562](#), [r564](#), [r988](#), [r1014](#), [r1352](#)).

$$\begin{aligned} \frac{d}{dt}\text{DiO2UL} = & v_{106} + v_{561} + v_{563} + v_{1196} + v_{1222} + v_{1248} + v_{1456} \\ & - v_{99} - v_{562} - v_{564} - v_{988} - v_{1014} - v_{1352} \end{aligned} \quad (3131)$$

8.133 Species Di12UU

Name Di12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in [r100](#), [r101](#), [r565](#), [r567](#), [r569](#), [r571](#), [r989](#), [r1015](#), [r1353](#) and as a product in [r566](#), [r568](#), [r570](#), [r572](#), [r1197](#), [r1223](#), [r1249](#), [r1457](#) and as a modifier in [r100](#), [r101](#), [r565](#), [r567](#), [r569](#), [r571](#), [r989](#), [r1015](#), [r1353](#)).

$$\begin{aligned} \frac{d}{dt}\text{Di12UU} = & v_{566} + v_{568} + v_{570} + v_{572} + v_{1197} + v_{1223} + v_{1249} + v_{1457} - v_{100} \\ & - v_{101} - v_{565} - v_{567} - v_{569} - v_{571} - v_{989} - v_{1015} - v_{1353} \end{aligned} \quad (3132)$$

8.134 Species Di12CU

Name Di12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r102](#), [r566](#), [r573](#), [r575](#), [r990](#), [r1016](#), [r1354](#) and as a product in [r565](#), [r574](#), [r576](#), [r1198](#), [r1224](#), [r1250](#), [r1458](#) and as a modifier in [r102](#), [r566](#), [r573](#), [r575](#), [r990](#), [r1016](#), [r1354](#)).

$$\begin{aligned} \frac{d}{dt}\text{Di12CU} = & v_{565} + v_{574} + v_{576} + v_{1198} + v_{1224} + v_{1250} + v_{1458} \\ & - v_{102} - v_{566} - v_{573} - v_{575} - v_{990} - v_{1016} - v_{1354} \end{aligned} \quad (3133)$$

8.135 Species Di12LU

Name Di12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r103](#), [r568](#), [r574](#), [r577](#), [r579](#), [r991](#), [r1017](#), [r1355](#) and as a product in [r567](#), [r573](#), [r578](#), [r580](#), [r1199](#), [r1225](#), [r1251](#), [r1459](#) and as a modifier in [r103](#), [r568](#), [r574](#), [r577](#), [r579](#), [r991](#), [r1017](#), [r1355](#)).

$$\begin{aligned} \frac{d}{dt} \text{Di12LU} = & v_{567} + v_{573} + v_{578} + v_{580} + v_{1199} + v_{1225} + v_{1251} + v_{1459} \\ & - v_{103} - v_{568} - v_{574} - v_{577} - v_{579} - v_{991} - v_{1017} - v_{1355} \end{aligned} \quad (3134)$$

8.136 Species Di12UG

Name Di12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in [r104](#), [r105](#), [r570](#), [r581](#), [r583](#), [r585](#), [r992](#), [r1018](#), [r1356](#) and as a product in [r569](#), [r582](#), [r584](#), [r586](#), [r1200](#), [r1226](#), [r1252](#), [r1460](#) and as a modifier in [r104](#), [r105](#), [r570](#), [r581](#), [r583](#), [r585](#), [r992](#), [r1018](#), [r1356](#)).

$$\begin{aligned} \frac{d}{dt} \text{Di12UG} = & v_{569} + v_{582} + v_{584} + v_{586} + v_{1200} + v_{1226} + v_{1252} + v_{1460} - v_{104} \\ & - v_{105} - v_{570} - v_{581} - v_{583} - v_{585} - v_{992} - v_{1018} - v_{1356} \end{aligned} \quad (3135)$$

8.137 Species Di12UL

Name Di12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r106](#), [r107](#), [r572](#), [r586](#), [r587](#), [r993](#), [r1019](#), [r1357](#) and as a product in [r571](#), [r585](#), [r588](#), [r1201](#), [r1227](#), [r1253](#), [r1461](#) and as a modifier in [r106](#), [r107](#), [r572](#), [r586](#), [r587](#), [r993](#), [r1019](#), [r1357](#)).

$$\begin{aligned} \frac{d}{dt} \text{Di12UL} = & v_{571} + v_{585} + v_{588} + v_{1201} + v_{1227} + v_{1253} + v_{1461} - v_{106} \\ & - v_{107} - v_{572} - v_{586} - v_{587} - v_{993} - v_{1019} - v_{1357} \end{aligned} \quad (3136)$$

8.138 Species Di12CG

Name Di12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r108](#), [r576](#), [r582](#), [r589](#), [r591](#), [r994](#), [r1020](#), [r1358](#) and as a product in [r575](#), [r581](#), [r590](#), [r592](#), [r1202](#), [r1228](#), [r1254](#), [r1462](#) and as a modifier in [r108](#), [r576](#), [r582](#), [r589](#), [r591](#), [r994](#), [r1020](#), [r1358](#)).

$$\frac{d}{dt}\text{Di12CG} = v_{575} + v_{581} + v_{590} + v_{592} + v_{1202} + v_{1228} + v_{1254} + v_{1462} - v_{108} - v_{576} - v_{582} - v_{589} - v_{591} - v_{994} - v_{1020} - v_{1358} \quad (3137)$$

8.139 Species Di12CC

Name Di12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r109](#), [r580](#), [r588](#), [r590](#), [r995](#), [r1021](#), [r1359](#) and as a product in [r579](#), [r587](#), [r589](#), [r1203](#), [r1229](#), [r1255](#), [r1463](#) and as a modifier in [r109](#), [r580](#), [r588](#), [r590](#), [r995](#), [r1021](#), [r1359](#)).

$$\frac{d}{dt}\text{Di12CC} = v_{579} + v_{587} + v_{589} + v_{1203} + v_{1229} + v_{1255} + v_{1463} - v_{109} - v_{580} - v_{588} - v_{590} - v_{995} - v_{1021} - v_{1359} \quad (3138)$$

8.140 Species Di12LG

Name Di12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r110](#), [r578](#), [r584](#), [r592](#), [r996](#), [r1022](#), [r1360](#) and as a product in [r577](#), [r583](#), [r591](#), [r1204](#), [r1230](#), [r1256](#), [r1464](#) and as a modifier in [r110](#), [r578](#), [r584](#), [r592](#), [r996](#), [r1022](#), [r1360](#)).

$$\frac{d}{dt}\text{Di12LG} = v_{577} + v_{583} + v_{591} + v_{1204} + v_{1230} + v_{1256} + v_{1464} - v_{110} - v_{578} - v_{584} - v_{592} - v_{996} - v_{1022} - v_{1360} \quad (3139)$$

8.141 Species Da00UU

Name Da00UU

Initial concentration 0 mol · l⁻¹

This species takes part in 15 reactions (as a reactant in [r177](#), [r178](#), [r1023](#), [r1179](#), [r1387](#) and as a product in [r111](#), [r112](#), [r971](#), [r1153](#), [r1257](#) and as a modifier in [r177](#), [r178](#), [r1023](#), [r1179](#), [r1387](#)).

$$\frac{d}{dt}\text{Da00UU} = v_{111} + v_{112} + v_{971} + v_{1153} + v_{1257} - v_{177} - v_{178} - v_{1023} - v_{1179} - v_{1387} \quad (3140)$$

8.142 Species Da10UU

Name Da10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r111](#), [r179](#), [r593](#), [r595](#), [r1024](#), [r1180](#), [r1388](#) and as a product in [r114](#), [r177](#), [r594](#), [r596](#), [r972](#), [r1154](#), [r1258](#) and as a modifier in [r111](#), [r179](#), [r593](#), [r595](#), [r1024](#), [r1180](#), [r1388](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da10UU} = & v_{114} + v_{177} + v_{594} + v_{596} + v_{972} + v_{1154} + v_{1258} \\ & - v_{111} - v_{179} - v_{593} - v_{595} - v_{1024} - v_{1180} - v_{1388} \end{aligned} \quad (3141)$$

8.143 Species Da10CU

Name Da10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r180](#), [r594](#), [r597](#), [r1025](#), [r1181](#), [r1389](#) and as a product in [r115](#), [r593](#), [r598](#), [r973](#), [r1155](#), [r1259](#) and as a modifier in [r180](#), [r594](#), [r597](#), [r1025](#), [r1181](#), [r1389](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da10CU} = & v_{115} + v_{593} + v_{598} + v_{973} + v_{1155} + v_{1259} \\ & - v_{180} - v_{594} - v_{597} - v_{1025} - v_{1181} - v_{1389} \end{aligned} \quad (3142)$$

8.144 Species Da10LU

Name Da10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r181](#), [r596](#), [r598](#), [r1026](#), [r1182](#), [r1390](#) and as a product in [r116](#), [r595](#), [r597](#), [r974](#), [r1156](#), [r1260](#) and as a modifier in [r181](#), [r596](#), [r598](#), [r1026](#), [r1182](#), [r1390](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da10LU} = & v_{116} + v_{595} + v_{597} + v_{974} + v_{1156} + v_{1260} \\ & - v_{181} - v_{596} - v_{598} - v_{1026} - v_{1182} - v_{1390} \end{aligned} \quad (3143)$$

8.145 Species Da01UU

Name Da01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r112](#), [r182](#), [r183](#), [r599](#), [r601](#), [r1027](#), [r1183](#), [r1391](#) and as a product in [r113](#), [r119](#), [r178](#), [r600](#), [r602](#), [r975](#), [r1157](#), [r1261](#) and as a modifier in [r112](#), [r182](#), [r183](#), [r599](#), [r601](#), [r1027](#), [r1183](#), [r1391](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da01UU} = & v_{113} + v_{119} + v_{178} + v_{600} + v_{602} + v_{975} + v_{1157} + v_{1261} \\ & - v_{112} - v_{182} - v_{183} - v_{599} - v_{601} - v_{1027} - v_{1183} - v_{1391} \end{aligned} \quad (3144)$$

8.146 Species Da01UG

Name Da01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r184](#), [r185](#), [r600](#), [r603](#), [r1028](#), [r1184](#), [r1392](#) and as a product in [r117](#), [r120](#), [r599](#), [r604](#), [r976](#), [r1158](#), [r1262](#) and as a modifier in [r184](#), [r185](#), [r600](#), [r603](#), [r1028](#), [r1184](#), [r1392](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da01UG} = & v_{117} + v_{120} + v_{599} + v_{604} + v_{976} + v_{1158} + v_{1262} \\ & - v_{184} - v_{185} - v_{600} - v_{603} - v_{1028} - v_{1184} - v_{1392} \end{aligned} \quad (3145)$$

8.147 Species Da01UL

Name Da01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r186](#), [r187](#), [r602](#), [r604](#), [r1029](#), [r1185](#), [r1393](#) and as a product in [r118](#), [r121](#), [r601](#), [r603](#), [r977](#), [r1159](#), [r1263](#) and as a modifier in [r186](#), [r187](#), [r602](#), [r604](#), [r1029](#), [r1185](#), [r1393](#)).

$$\begin{aligned} \frac{d}{dt} \text{Da01UL} = & \textcolor{blue}{v_{118}} + \textcolor{blue}{v_{121}} + \textcolor{blue}{v_{601}} + \textcolor{blue}{v_{603}} + \textcolor{blue}{v_{977}} + \textcolor{blue}{v_{1159}} + \textcolor{blue}{v_{1263}} \\ & - \textcolor{blue}{v_{186}} - \textcolor{blue}{v_{187}} - \textcolor{blue}{v_{602}} - \textcolor{blue}{v_{604}} - \textcolor{blue}{v_{1029}} - \textcolor{blue}{v_{1185}} - \textcolor{blue}{v_{1393}} \end{aligned} \quad (3146)$$

8.148 Species Da11UU

Name Da11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 30 reactions (as a reactant in [r113](#), [r114](#), [r188](#), [r605](#), [r607](#), [r609](#), [r611](#), [r1030](#), [r1186](#), [r1394](#) and as a product in [r123](#), [r179](#), [r182](#), [r606](#), [r608](#), [r610](#), [r612](#), [r978](#), [r1160](#), [r1264](#) and as a modifier in [r113](#), [r114](#), [r188](#), [r605](#), [r607](#), [r609](#), [r611](#), [r1030](#), [r1186](#), [r1394](#)).

$$\begin{aligned} \frac{d}{dt} \text{Da11UU} = & \textcolor{blue}{v_{123}} + \textcolor{blue}{v_{179}} + \textcolor{blue}{v_{182}} + \textcolor{blue}{v_{606}} + \textcolor{blue}{v_{608}} + \textcolor{blue}{v_{610}} + \textcolor{blue}{v_{612}} + \textcolor{blue}{v_{978}} + \textcolor{blue}{v_{1160}} + \textcolor{blue}{v_{1264}} \\ & - \textcolor{blue}{v_{113}} - \textcolor{blue}{v_{114}} - \textcolor{blue}{v_{188}} - \textcolor{blue}{v_{605}} - \textcolor{blue}{v_{607}} - \textcolor{blue}{v_{609}} - \textcolor{blue}{v_{611}} - \textcolor{blue}{v_{1030}} - \textcolor{blue}{v_{1186}} - \textcolor{blue}{v_{1394}} \end{aligned} \quad (3147)$$

8.149 Species Da11CU

Name Da11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r115](#), [r189](#), [r606](#), [r613](#), [r615](#), [r1031](#), [r1187](#), [r1395](#) and as a product in [r124](#), [r180](#), [r605](#), [r614](#), [r616](#), [r979](#), [r1161](#), [r1265](#) and as a modifier in [r115](#), [r189](#), [r606](#), [r613](#), [r615](#), [r1031](#), [r1187](#), [r1395](#)).

$$\begin{aligned} \frac{d}{dt} \text{Da11CU} = & \textcolor{blue}{v_{124}} + \textcolor{blue}{v_{180}} + \textcolor{blue}{v_{605}} + \textcolor{blue}{v_{614}} + \textcolor{blue}{v_{616}} + \textcolor{blue}{v_{979}} + \textcolor{blue}{v_{1161}} + \textcolor{blue}{v_{1265}} \\ & - \textcolor{blue}{v_{115}} - \textcolor{blue}{v_{189}} - \textcolor{blue}{v_{606}} - \textcolor{blue}{v_{613}} - \textcolor{blue}{v_{615}} - \textcolor{blue}{v_{1031}} - \textcolor{blue}{v_{1187}} - \textcolor{blue}{v_{1395}} \end{aligned} \quad (3148)$$

8.150 Species Da11LU

Name Da11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r116](#), [r190](#), [r608](#), [r614](#), [r617](#), [r619](#), [r1032](#), [r1188](#), [r1396](#) and as a product in [r125](#), [r181](#), [r607](#), [r613](#), [r618](#), [r620](#), [r980](#), [r1162](#), [r1266](#) and as a modifier in [r116](#), [r190](#), [r608](#), [r614](#), [r617](#), [r619](#), [r1032](#), [r1188](#), [r1396](#)).

$$\begin{aligned} \frac{d}{dt} \text{Da11LU} = & v_{125} + v_{181} + v_{607} + v_{613} + v_{618} + v_{620} + v_{980} + v_{1162} + v_{1266} \\ & - v_{116} - v_{190} - v_{608} - v_{614} - v_{617} - v_{619} - v_{1032} - v_{1188} - v_{1396} \end{aligned} \quad (3149)$$

8.151 Species Da11UG

Name Da11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r117](#), [r191](#), [r610](#), [r621](#), [r623](#), [r625](#), [r1033](#), [r1189](#), [r1397](#) and as a product in [r127](#), [r184](#), [r609](#), [r622](#), [r624](#), [r626](#), [r981](#), [r1163](#), [r1267](#) and as a modifier in [r117](#), [r191](#), [r610](#), [r621](#), [r623](#), [r625](#), [r1033](#), [r1189](#), [r1397](#)).

$$\begin{aligned} \frac{d}{dt} \text{Da11UG} = & v_{127} + v_{184} + v_{609} + v_{622} + v_{624} + v_{626} + v_{981} + v_{1163} + v_{1267} \\ & - v_{117} - v_{191} - v_{610} - v_{621} - v_{623} - v_{625} - v_{1033} - v_{1189} - v_{1397} \end{aligned} \quad (3150)$$

8.152 Species Da11UL

Name Da11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r118](#), [r192](#), [r612](#), [r626](#), [r627](#), [r1034](#), [r1190](#), [r1398](#) and as a product in [r129](#), [r186](#), [r611](#), [r625](#), [r628](#), [r982](#), [r1164](#), [r1268](#) and as a modifier in [r118](#), [r192](#), [r612](#), [r626](#), [r627](#), [r1034](#), [r1190](#), [r1398](#)).

$$\begin{aligned} \frac{d}{dt} \text{Da11UL} = & v_{129} + v_{186} + v_{611} + v_{625} + v_{628} + v_{982} + v_{1164} + v_{1268} \\ & - v_{118} - v_{192} - v_{612} - v_{626} - v_{627} - v_{1034} - v_{1190} - v_{1398} \end{aligned} \quad (3151)$$

8.153 Species Da11CG

Name Da11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r193](#), [r616](#), [r622](#), [r629](#), [r631](#), [r1035](#), [r1191](#), [r1399](#) and as a product in [r130](#), [r615](#), [r621](#), [r630](#), [r632](#), [r983](#), [r1165](#), [r1269](#) and as a modifier in [r193](#), [r616](#), [r622](#), [r629](#), [r631](#), [r1035](#), [r1191](#), [r1399](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da11CG} = & \textcolor{blue}{v_{130}} + \textcolor{blue}{v_{615}} + \textcolor{blue}{v_{621}} + \textcolor{blue}{v_{630}} + \textcolor{blue}{v_{632}} + \textcolor{blue}{v_{983}} + \textcolor{blue}{v_{1165}} + \textcolor{blue}{v_{1269}} \\ & - \textcolor{blue}{v_{193}} - \textcolor{blue}{v_{616}} - \textcolor{blue}{v_{622}} - \textcolor{blue}{v_{629}} - \textcolor{blue}{v_{631}} - \textcolor{blue}{v_{1035}} - \textcolor{blue}{v_{1191}} - \textcolor{blue}{v_{1399}} \end{aligned} \quad (3152)$$

8.154 Species Da11CC

Name Da11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r194](#), [r620](#), [r628](#), [r630](#), [r1036](#), [r1192](#), [r1400](#) and as a product in [r131](#), [r619](#), [r627](#), [r629](#), [r984](#), [r1166](#), [r1270](#) and as a modifier in [r194](#), [r620](#), [r628](#), [r630](#), [r1036](#), [r1192](#), [r1400](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da11CC} = & \textcolor{blue}{v_{131}} + \textcolor{blue}{v_{619}} + \textcolor{blue}{v_{627}} + \textcolor{blue}{v_{629}} + \textcolor{blue}{v_{984}} + \textcolor{blue}{v_{1166}} + \textcolor{blue}{v_{1270}} \\ & - \textcolor{blue}{v_{194}} - \textcolor{blue}{v_{620}} - \textcolor{blue}{v_{628}} - \textcolor{blue}{v_{630}} - \textcolor{blue}{v_{1036}} - \textcolor{blue}{v_{1192}} - \textcolor{blue}{v_{1400}} \end{aligned} \quad (3153)$$

8.155 Species Da11LG

Name Da11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r195](#), [r618](#), [r624](#), [r632](#), [r1037](#), [r1193](#), [r1401](#) and as a product in [r132](#), [r617](#), [r623](#), [r631](#), [r985](#), [r1167](#), [r1271](#) and as a modifier in [r195](#), [r618](#), [r624](#), [r632](#), [r1037](#), [r1193](#), [r1401](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da11LG} = & \textcolor{blue}{v_{132}} + \textcolor{blue}{v_{617}} + \textcolor{blue}{v_{623}} + \textcolor{blue}{v_{631}} + \textcolor{blue}{v_{985}} + \textcolor{blue}{v_{1167}} + \textcolor{blue}{v_{1271}} \\ & - \textcolor{blue}{v_{195}} - \textcolor{blue}{v_{618}} - \textcolor{blue}{v_{624}} - \textcolor{blue}{v_{632}} - \textcolor{blue}{v_{1037}} - \textcolor{blue}{v_{1193}} - \textcolor{blue}{v_{1401}} \end{aligned} \quad (3154)$$

8.156 Species Da02UU

Name Da02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r119](#), [r196](#), [r633](#), [r635](#), [r1038](#), [r1194](#), [r1402](#) and as a product in [r122](#), [r183](#), [r634](#), [r636](#), [r986](#), [r1168](#), [r1272](#) and as a modifier in [r119](#), [r196](#), [r633](#), [r635](#), [r1038](#), [r1194](#), [r1402](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da02UU} = & v_{122} + v_{183} + v_{634} + v_{636} + v_{986} + v_{1168} + v_{1272} \\ & - v_{119} - v_{196} - v_{633} - v_{635} - v_{1038} - v_{1194} - v_{1402} \end{aligned} \quad (3155)$$

8.157 Species Da02UG

Name Da02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r120](#), [r197](#), [r634](#), [r637](#), [r1039](#), [r1195](#), [r1403](#) and as a product in [r126](#), [r185](#), [r633](#), [r638](#), [r987](#), [r1169](#), [r1273](#) and as a modifier in [r120](#), [r197](#), [r634](#), [r637](#), [r1039](#), [r1195](#), [r1403](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da02UG} = & v_{126} + v_{185} + v_{633} + v_{638} + v_{987} + v_{1169} + v_{1273} \\ & - v_{120} - v_{197} - v_{634} - v_{637} - v_{1039} - v_{1195} - v_{1403} \end{aligned} \quad (3156)$$

8.158 Species Da02UL

Name Da02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r121](#), [r198](#), [r636](#), [r638](#), [r1040](#), [r1196](#), [r1404](#) and as a product in [r128](#), [r187](#), [r635](#), [r637](#), [r988](#), [r1170](#), [r1274](#) and as a modifier in [r121](#), [r198](#), [r636](#), [r638](#), [r1040](#), [r1196](#), [r1404](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da02UL} = & v_{128} + v_{187} + v_{635} + v_{637} + v_{988} + v_{1170} + v_{1274} \\ & - v_{121} - v_{198} - v_{636} - v_{638} - v_{1040} - v_{1196} - v_{1404} \end{aligned} \quad (3157)$$

8.159 Species Da12UU

Name Da12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r122](#), [r123](#), [r639](#), [r641](#), [r643](#), [r645](#), [r1041](#), [r1197](#), [r1405](#) and as a product in [r188](#), [r196](#), [r640](#), [r642](#), [r644](#), [r646](#), [r989](#), [r1171](#), [r1275](#) and as a modifier in [r122](#), [r123](#), [r639](#), [r641](#), [r643](#), [r645](#), [r1041](#), [r1197](#), [r1405](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da12UU} = & v_{188} + v_{196} + v_{640} + v_{642} + v_{644} + v_{646} + v_{989} + v_{1171} + v_{1275} \\ & - v_{122} - v_{123} - v_{639} - v_{641} - v_{643} - v_{645} - v_{1041} - v_{1197} - v_{1405} \end{aligned} \quad (3158)$$

8.160 Species Da12CU

Name Da12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r124](#), [r640](#), [r647](#), [r649](#), [r1042](#), [r1198](#), [r1406](#) and as a product in [r189](#), [r639](#), [r648](#), [r650](#), [r990](#), [r1172](#), [r1276](#) and as a modifier in [r124](#), [r640](#), [r647](#), [r649](#), [r1042](#), [r1198](#), [r1406](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da12CU} = & v_{189} + v_{639} + v_{648} + v_{650} + v_{990} + v_{1172} + v_{1276} \\ & - v_{124} - v_{640} - v_{647} - v_{649} - v_{1042} - v_{1198} - v_{1406} \end{aligned} \quad (3159)$$

8.161 Species Da12LU

Name Da12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r125](#), [r642](#), [r648](#), [r651](#), [r653](#), [r1043](#), [r1199](#), [r1407](#) and as a product in [r190](#), [r641](#), [r647](#), [r652](#), [r654](#), [r991](#), [r1173](#), [r1277](#) and as a modifier in [r125](#), [r642](#), [r648](#), [r651](#), [r653](#), [r1043](#), [r1199](#), [r1407](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da12LU} = & v_{190} + v_{641} + v_{647} + v_{652} + v_{654} + v_{991} + v_{1173} + v_{1277} \\ & - v_{125} - v_{642} - v_{648} - v_{651} - v_{653} - v_{1043} - v_{1199} - v_{1407} \end{aligned} \quad (3160)$$

8.162 Species Da12UG

Name Da12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 27 reactions (as a reactant in [r126](#), [r127](#), [r644](#), [r655](#), [r657](#), [r659](#), [r1044](#), [r1200](#), [r1408](#) and as a product in [r191](#), [r197](#), [r643](#), [r656](#), [r658](#), [r660](#), [r992](#), [r1174](#), [r1278](#) and as a modifier in [r126](#), [r127](#), [r644](#), [r655](#), [r657](#), [r659](#), [r1044](#), [r1200](#), [r1408](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da12UG} = & v_{191} + v_{197} + v_{643} + v_{656} + v_{658} + v_{660} + v_{992} + v_{1174} + v_{1278} \\ & - v_{126} - v_{127} - v_{644} - v_{655} - v_{657} - v_{659} - v_{1044} - v_{1200} - v_{1408} \end{aligned} \quad (3161)$$

8.163 Species Da12UL

Name Da12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r128](#), [r129](#), [r646](#), [r660](#), [r661](#), [r1045](#), [r1201](#), [r1409](#) and as a product in [r192](#), [r198](#), [r645](#), [r659](#), [r662](#), [r993](#), [r1175](#), [r1279](#) and as a modifier in [r128](#), [r129](#), [r646](#), [r660](#), [r661](#), [r1045](#), [r1201](#), [r1409](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da12UL} = & v_{192} + v_{198} + v_{645} + v_{659} + v_{662} + v_{993} + v_{1175} + v_{1279} \\ & - v_{128} - v_{129} - v_{646} - v_{660} - v_{661} - v_{1045} - v_{1201} - v_{1409} \end{aligned} \quad (3162)$$

8.164 Species Da12CG

Name Da12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r130](#), [r650](#), [r656](#), [r663](#), [r665](#), [r1046](#), [r1202](#), [r1410](#) and as a product in [r193](#), [r649](#), [r655](#), [r664](#), [r666](#), [r994](#), [r1176](#), [r1280](#) and as a modifier in [r130](#), [r650](#), [r656](#), [r663](#), [r665](#), [r1046](#), [r1202](#), [r1410](#)).

$$\begin{aligned} \frac{d}{dt}\text{Da12CG} = & v_{193} + v_{649} + v_{655} + v_{664} + v_{666} + v_{994} + v_{1176} + v_{1280} \\ & - v_{130} - v_{650} - v_{656} - v_{663} - v_{665} - v_{1046} - v_{1202} - v_{1410} \end{aligned} \quad (3163)$$

8.165 Species Da12CC

Name Da12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r131](#), [r654](#), [r662](#), [r664](#), [r1047](#), [r1203](#), [r1411](#) and as a product in [r194](#), [r653](#), [r661](#), [r663](#), [r995](#), [r1177](#), [r1281](#) and as a modifier in [r131](#), [r654](#), [r662](#), [r664](#), [r1047](#), [r1203](#), [r1411](#)).

$$\frac{d}{dt}\text{Da12CC} = v_{194} + v_{653} + v_{661} + v_{663} + v_{995} + v_{1177} + v_{1281} - v_{131} - v_{654} - v_{662} - v_{664} - v_{1047} - v_{1203} - v_{1411} \quad (3164)$$

8.166 Species Da12LG

Name Da12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r132](#), [r652](#), [r658](#), [r666](#), [r1048](#), [r1204](#), [r1412](#) and as a product in [r195](#), [r651](#), [r657](#), [r665](#), [r996](#), [r1178](#), [r1282](#) and as a modifier in [r132](#), [r652](#), [r658](#), [r666](#), [r1048](#), [r1204](#), [r1412](#)).

$$\frac{d}{dt}\text{Da12LG} = v_{195} + v_{651} + v_{657} + v_{665} + v_{996} + v_{1178} + v_{1282} - v_{132} - v_{652} - v_{658} - v_{666} - v_{1048} - v_{1204} - v_{1412} \quad (3165)$$

8.167 Species DiL00UU

Name DiL00UU

Initial concentration 0 mol · l⁻¹

This species takes part in eleven reactions (as a reactant in [r1049](#), [r1205](#), [r1361](#) and as a product in [r133](#), [r134](#), [r997](#), [r1127](#), [r1283](#) and as a modifier in [r1049](#), [r1205](#), [r1361](#)).

$$\frac{d}{dt}\text{DiL00UU} = v_{133} + v_{134} + v_{997} + v_{1127} + v_{1283} - v_{1049} - v_{1205} - v_{1361} \quad (3166)$$

8.168 Species DiL10UU

Name DiL10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r133](#), [r667](#), [r669](#), [r1050](#), [r1206](#), [r1362](#) and as a product in [r136](#), [r668](#), [r670](#), [r998](#), [r1128](#), [r1284](#) and as a modifier in [r133](#), [r667](#), [r669](#), [r1050](#), [r1206](#), [r1362](#)).

$$\frac{d}{dt}\text{DiL10UU} = v_{136} + v_{668} + v_{670} + v_{998} + v_{1128} + v_{1284} - v_{133} - v_{667} - v_{669} - v_{1050} - v_{1206} - v_{1362} \quad (3167)$$

8.169 Species [DiL10CU](#)

Name DiL10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r668](#), [r671](#), [r1051](#), [r1207](#), [r1363](#) and as a product in [r137](#), [r667](#), [r672](#), [r999](#), [r1129](#), [r1285](#) and as a modifier in [r668](#), [r671](#), [r1051](#), [r1207](#), [r1363](#)).

$$\frac{d}{dt}\text{DiL10CU} = v_{137} + v_{667} + v_{672} + v_{999} + v_{1129} + v_{1285} - v_{668} - v_{671} - v_{1051} - v_{1207} - v_{1363} \quad (3168)$$

8.170 Species [DiL10LU](#)

Name DiL10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r670](#), [r672](#), [r1052](#), [r1208](#), [r1364](#) and as a product in [r138](#), [r669](#), [r671](#), [r1000](#), [r1130](#), [r1286](#) and as a modifier in [r670](#), [r672](#), [r1052](#), [r1208](#), [r1364](#)).

$$\frac{d}{dt}\text{DiL10LU} = v_{138} + v_{669} + v_{671} + v_{1000} + v_{1130} + v_{1286} - v_{670} - v_{672} - v_{1052} - v_{1208} - v_{1364} \quad (3169)$$

8.171 Species [DiL01UU](#)

Name DiL01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r134](#), [r673](#), [r675](#), [r1053](#), [r1209](#), [r1365](#) and as a product in [r135](#), [r141](#), [r674](#), [r676](#), [r1001](#), [r1131](#), [r1287](#) and as a modifier in [r134](#), [r673](#), [r675](#), [r1053](#), [r1209](#), [r1365](#)).

$$\frac{d}{dt}\text{DiL01UU} = v_{135} + v_{141} + v_{674} + v_{676} + v_{1001} + v_{1131} + v_{1287} - v_{134} - v_{673} - v_{675} - v_{1053} - v_{1209} - v_{1365} \quad (3170)$$

8.172 Species DiL01UG

Name DiL01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r674](#), [r677](#), [r1054](#), [r1210](#), [r1366](#) and as a product in [r139](#), [r142](#), [r673](#), [r678](#), [r1002](#), [r1132](#), [r1288](#) and as a modifier in [r674](#), [r677](#), [r1054](#), [r1210](#), [r1366](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL01UG} = & v_{139} + v_{142} + v_{673} + v_{678} + v_{1002} + v_{1132} \\ & + v_{1288} - v_{674} - v_{677} - v_{1054} - v_{1210} - v_{1366} \end{aligned} \quad (3171)$$

8.173 Species DiL01UL

Name DiL01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 17 reactions (as a reactant in [r676](#), [r678](#), [r1055](#), [r1211](#), [r1367](#) and as a product in [r140](#), [r143](#), [r675](#), [r677](#), [r1003](#), [r1133](#), [r1289](#) and as a modifier in [r676](#), [r678](#), [r1055](#), [r1211](#), [r1367](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL01UL} = & v_{140} + v_{143} + v_{675} + v_{677} + v_{1003} + v_{1133} \\ & + v_{1289} - v_{676} - v_{678} - v_{1055} - v_{1211} - v_{1367} \end{aligned} \quad (3172)$$

8.174 Species DiL11UU

Name DiL11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 26 reactions (as a reactant in [r135](#), [r136](#), [r679](#), [r681](#), [r683](#), [r685](#), [r1056](#), [r1212](#), [r1368](#) and as a product in [r145](#), [r680](#), [r682](#), [r684](#), [r686](#), [r1004](#), [r1134](#), [r1290](#) and as a modifier in [r135](#), [r136](#), [r679](#), [r681](#), [r683](#), [r685](#), [r1056](#), [r1212](#), [r1368](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL11UU} = & v_{145} + v_{680} + v_{682} + v_{684} + v_{686} + v_{1004} + v_{1134} + v_{1290} - v_{135} \\ & - v_{136} - v_{679} - v_{681} - v_{683} - v_{685} - v_{1056} - v_{1212} - v_{1368} \end{aligned} \quad (3173)$$

8.175 Species DiL11CU

Name DiL11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r137](#), [r680](#), [r687](#), [r689](#), [r1057](#), [r1213](#), [r1369](#) and as a product in [r146](#), [r679](#), [r688](#), [r690](#), [r1005](#), [r1135](#), [r1291](#) and as a modifier in [r137](#), [r680](#), [r687](#), [r689](#), [r1057](#), [r1213](#), [r1369](#)).

$$\frac{d}{dt}\text{DiL11CU} = v_{146} + v_{679} + v_{688} + v_{690} + v_{1005} + v_{1135} + v_{1291} - v_{137} - v_{680} - v_{687} - v_{689} - v_{1057} - v_{1213} - v_{1369} \quad (3174)$$

8.176 Species DiL11LU

Name DiL11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r138](#), [r682](#), [r688](#), [r691](#), [r693](#), [r1058](#), [r1214](#), [r1370](#) and as a product in [r147](#), [r681](#), [r687](#), [r692](#), [r694](#), [r1006](#), [r1136](#), [r1292](#) and as a modifier in [r138](#), [r682](#), [r688](#), [r691](#), [r693](#), [r1058](#), [r1214](#), [r1370](#)).

$$\frac{d}{dt}\text{DiL11LU} = v_{147} + v_{681} + v_{687} + v_{692} + v_{694} + v_{1006} + v_{1136} + v_{1292} - v_{138} - v_{682} - v_{688} - v_{691} - v_{693} - v_{1058} - v_{1214} - v_{1370} \quad (3175)$$

8.177 Species DiL11UG

Name DiL11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 24 reactions (as a reactant in [r139](#), [r684](#), [r695](#), [r697](#), [r699](#), [r1059](#), [r1215](#), [r1371](#) and as a product in [r149](#), [r683](#), [r696](#), [r698](#), [r700](#), [r1007](#), [r1137](#), [r1293](#) and as a modifier in [r139](#), [r684](#), [r695](#), [r697](#), [r699](#), [r1059](#), [r1215](#), [r1371](#)).

$$\frac{d}{dt}\text{DiL11UG} = v_{149} + v_{683} + v_{696} + v_{698} + v_{700} + v_{1007} + v_{1137} + v_{1293} - v_{139} - v_{684} - v_{695} - v_{697} - v_{699} - v_{1059} - v_{1215} - v_{1371} \quad (3176)$$

8.178 Species DiL11UL

Name DiL11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 21 reactions (as a reactant in [r140](#), [r686](#), [r700](#), [r701](#), [r1060](#), [r1216](#), [r1372](#) and as a product in [r151](#), [r685](#), [r699](#), [r702](#), [r1008](#), [r1138](#), [r1294](#) and as a modifier in [r140](#), [r686](#), [r700](#), [r701](#), [r1060](#), [r1216](#), [r1372](#)).

$$\frac{d}{dt}\text{DiL11UL} = v_{151} + v_{685} + v_{699} + v_{702} + v_{1008} + v_{1138} + v_{1294} - v_{140} - v_{686} - v_{700} - v_{701} - v_{1060} - v_{1216} - v_{1372} \quad (3177)$$

8.179 Species DiL11CG

Name DiL11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r690](#), [r696](#), [r703](#), [r705](#), [r1061](#), [r1217](#), [r1373](#) and as a product in [r152](#), [r689](#), [r695](#), [r704](#), [r706](#), [r1009](#), [r1139](#), [r1295](#) and as a modifier in [r690](#), [r696](#), [r703](#), [r705](#), [r1061](#), [r1217](#), [r1373](#)).

$$\frac{d}{dt}\text{DiL11CG} = v_{152} + v_{689} + v_{695} + v_{704} + v_{706} + v_{1009} + v_{1139} + v_{1295} - v_{690} - v_{696} - v_{703} - v_{705} - v_{1061} - v_{1217} - v_{1373} \quad (3178)$$

8.180 Species DiL11CC

Name DiL11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r694](#), [r702](#), [r704](#), [r1062](#), [r1218](#), [r1374](#) and as a product in [r153](#), [r693](#), [r701](#), [r703](#), [r1010](#), [r1140](#), [r1296](#) and as a modifier in [r694](#), [r702](#), [r704](#), [r1062](#), [r1218](#), [r1374](#)).

$$\frac{d}{dt}\text{DiL11CC} = v_{153} + v_{693} + v_{701} + v_{703} + v_{1010} + v_{1140} + v_{1296} - v_{694} - v_{702} - v_{704} - v_{1062} - v_{1218} - v_{1374} \quad (3179)$$

8.181 Species DiL11LG

Name DiL11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r692](#), [r698](#), [r706](#), [r1063](#), [r1219](#), [r1375](#) and as a product in [r154](#), [r691](#), [r697](#), [r705](#), [r1011](#), [r1141](#), [r1297](#) and as a modifier in [r692](#), [r698](#), [r706](#), [r1063](#), [r1219](#), [r1375](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL11LG} = & \textcolor{blue}{v_{154}} + \textcolor{blue}{v_{691}} + \textcolor{blue}{v_{697}} + \textcolor{blue}{v_{705}} + \textcolor{blue}{v_{1011}} + \textcolor{blue}{v_{1141}} + \textcolor{blue}{v_{1297}} \\ & - \textcolor{blue}{v_{692}} - \textcolor{blue}{v_{698}} - \textcolor{blue}{v_{706}} - \textcolor{blue}{v_{1063}} - \textcolor{blue}{v_{1219}} - \textcolor{blue}{v_{1375}} \end{aligned} \quad (3180)$$

8.182 Species DiL02UU

Name DiL02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r141](#), [r707](#), [r709](#), [r1064](#), [r1220](#), [r1376](#) and as a product in [r144](#), [r708](#), [r710](#), [r1012](#), [r1142](#), [r1298](#) and as a modifier in [r141](#), [r707](#), [r709](#), [r1064](#), [r1220](#), [r1376](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL02UU} = & \textcolor{blue}{v_{144}} + \textcolor{blue}{v_{708}} + \textcolor{blue}{v_{710}} + \textcolor{blue}{v_{1012}} + \textcolor{blue}{v_{1142}} + \textcolor{blue}{v_{1298}} \\ & - \textcolor{blue}{v_{141}} - \textcolor{blue}{v_{707}} - \textcolor{blue}{v_{709}} - \textcolor{blue}{v_{1064}} - \textcolor{blue}{v_{1220}} - \textcolor{blue}{v_{1376}} \end{aligned} \quad (3181)$$

8.183 Species DiL02UG

Name DiL02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r142](#), [r708](#), [r711](#), [r1065](#), [r1221](#), [r1377](#) and as a product in [r148](#), [r707](#), [r712](#), [r1013](#), [r1143](#), [r1299](#) and as a modifier in [r142](#), [r708](#), [r711](#), [r1065](#), [r1221](#), [r1377](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL02UG} = & \textcolor{blue}{v_{148}} + \textcolor{blue}{v_{707}} + \textcolor{blue}{v_{712}} + \textcolor{blue}{v_{1013}} + \textcolor{blue}{v_{1143}} + \textcolor{blue}{v_{1299}} \\ & - \textcolor{blue}{v_{142}} - \textcolor{blue}{v_{708}} - \textcolor{blue}{v_{711}} - \textcolor{blue}{v_{1065}} - \textcolor{blue}{v_{1221}} - \textcolor{blue}{v_{1377}} \end{aligned} \quad (3182)$$

8.184 Species DiL02UL

Name DiL02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 18 reactions (as a reactant in [r143](#), [r710](#), [r712](#), [r1066](#), [r1222](#), [r1378](#) and as a product in [r150](#), [r709](#), [r711](#), [r1014](#), [r1144](#), [r1300](#) and as a modifier in [r143](#), [r710](#), [r712](#), [r1066](#), [r1222](#), [r1378](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL02UL} = & \textcolor{blue}{v_{150}} + \textcolor{blue}{v_{709}} + \textcolor{blue}{v_{711}} + \textcolor{blue}{v_{1014}} + \textcolor{blue}{v_{1144}} + \textcolor{blue}{v_{1300}} \\ & - \textcolor{blue}{v_{143}} - \textcolor{blue}{v_{710}} - \textcolor{blue}{v_{712}} - \textcolor{blue}{v_{1066}} - \textcolor{blue}{v_{1222}} - \textcolor{blue}{v_{1378}} \end{aligned} \quad (3183)$$

8.185 Species DiL12UU

Name DiL12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r144](#), [r145](#), [r713](#), [r715](#), [r717](#), [r719](#), [r1067](#), [r1223](#), [r1379](#) and as a product in [r714](#), [r716](#), [r718](#), [r720](#), [r1015](#), [r1145](#), [r1301](#) and as a modifier in [r144](#), [r145](#), [r713](#), [r715](#), [r717](#), [r719](#), [r1067](#), [r1223](#), [r1379](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL12UU} = & \textcolor{blue}{v_{714}} + \textcolor{blue}{v_{716}} + \textcolor{blue}{v_{718}} + \textcolor{blue}{v_{720}} + \textcolor{blue}{v_{1015}} + \textcolor{blue}{v_{1145}} + \textcolor{blue}{v_{1301}} - \textcolor{blue}{v_{144}} \\ & - \textcolor{blue}{v_{145}} - \textcolor{blue}{v_{713}} - \textcolor{blue}{v_{715}} - \textcolor{blue}{v_{717}} - \textcolor{blue}{v_{719}} - \textcolor{blue}{v_{1067}} - \textcolor{blue}{v_{1223}} - \textcolor{blue}{v_{1379}} \end{aligned} \quad (3184)$$

8.186 Species DiL12CU

Name DiL12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r146](#), [r714](#), [r721](#), [r723](#), [r1068](#), [r1224](#), [r1380](#) and as a product in [r713](#), [r722](#), [r724](#), [r1016](#), [r1146](#), [r1302](#) and as a modifier in [r146](#), [r714](#), [r721](#), [r723](#), [r1068](#), [r1224](#), [r1380](#)).

$$\begin{aligned} \frac{d}{dt} \text{DiL12CU} = & \textcolor{blue}{v_{713}} + \textcolor{blue}{v_{722}} + \textcolor{blue}{v_{724}} + \textcolor{blue}{v_{1016}} + \textcolor{blue}{v_{1146}} + \textcolor{blue}{v_{1302}} - \textcolor{blue}{v_{146}} \\ & - \textcolor{blue}{v_{714}} - \textcolor{blue}{v_{721}} - \textcolor{blue}{v_{723}} - \textcolor{blue}{v_{1068}} - \textcolor{blue}{v_{1224}} - \textcolor{blue}{v_{1380}} \end{aligned} \quad (3185)$$

8.187 Species DiL12LU

Name DiL12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r147](#), [r716](#), [r722](#), [r725](#), [r727](#), [r1069](#), [r1225](#), [r1381](#) and as a product in [r715](#), [r721](#), [r726](#), [r728](#), [r1017](#), [r1147](#), [r1303](#) and as a modifier in [r147](#), [r716](#), [r722](#), [r725](#), [r727](#), [r1069](#), [r1225](#), [r1381](#)).

$$\frac{d}{dt}\text{DiL12LU} = v_{715} + v_{721} + v_{726} + v_{728} + v_{1017} + v_{1147} + v_{1303} - v_{147} - v_{716} - v_{722} - v_{725} - v_{727} - v_{1069} - v_{1225} - v_{1381} \quad (3186)$$

8.188 Species DiL12UG

Name DiL12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r148](#), [r149](#), [r718](#), [r729](#), [r731](#), [r733](#), [r1070](#), [r1226](#), [r1382](#) and as a product in [r717](#), [r730](#), [r732](#), [r734](#), [r1018](#), [r1148](#), [r1304](#) and as a modifier in [r148](#), [r149](#), [r718](#), [r729](#), [r731](#), [r733](#), [r1070](#), [r1226](#), [r1382](#)).

$$\frac{d}{dt}\text{DiL12UG} = v_{717} + v_{730} + v_{732} + v_{734} + v_{1018} + v_{1148} + v_{1304} - v_{148} - v_{149} - v_{718} - v_{729} - v_{731} - v_{733} - v_{1070} - v_{1226} - v_{1382} \quad (3187)$$

8.189 Species DiL12UL

Name DiL12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r150](#), [r151](#), [r720](#), [r734](#), [r735](#), [r1071](#), [r1227](#), [r1383](#) and as a product in [r719](#), [r733](#), [r736](#), [r1019](#), [r1149](#), [r1305](#) and as a modifier in [r150](#), [r151](#), [r720](#), [r734](#), [r735](#), [r1071](#), [r1227](#), [r1383](#)).

$$\frac{d}{dt}\text{DiL12UL} = v_{719} + v_{733} + v_{736} + v_{1019} + v_{1149} + v_{1305} - v_{150} - v_{151} - v_{720} - v_{734} - v_{735} - v_{1071} - v_{1227} - v_{1383} \quad (3188)$$

8.190 Species DiL12CG

Name DiL12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 23 reactions (as a reactant in [r152](#), [r724](#), [r730](#), [r737](#), [r739](#), [r1072](#), [r1228](#), [r1384](#) and as a product in [r723](#), [r729](#), [r738](#), [r740](#), [r1020](#), [r1150](#), [r1306](#) and as a modifier in [r152](#), [r724](#), [r730](#), [r737](#), [r739](#), [r1072](#), [r1228](#), [r1384](#)).

$$\frac{d}{dt}\text{DiL12CG} = v_{723} + v_{729} + v_{738} + v_{740} + v_{1020} + v_{1150} + v_{1306} - v_{152} - v_{724} - v_{730} - v_{737} - v_{739} - v_{1072} - v_{1228} - v_{1384} \quad (3189)$$

8.191 Species DiL12CC

Name DiL12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r153](#), [r728](#), [r736](#), [r738](#), [r1073](#), [r1229](#), [r1385](#) and as a product in [r727](#), [r735](#), [r737](#), [r1021](#), [r1151](#), [r1307](#) and as a modifier in [r153](#), [r728](#), [r736](#), [r738](#), [r1073](#), [r1229](#), [r1385](#)).

$$\frac{d}{dt}\text{DiL12CC} = v_{727} + v_{735} + v_{737} + v_{1021} + v_{1151} + v_{1307} - v_{153} - v_{728} - v_{736} - v_{738} - v_{1073} - v_{1229} - v_{1385} \quad (3190)$$

8.192 Species DiL12LG

Name DiL12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 20 reactions (as a reactant in [r154](#), [r726](#), [r732](#), [r740](#), [r1074](#), [r1230](#), [r1386](#) and as a product in [r725](#), [r731](#), [r739](#), [r1022](#), [r1152](#), [r1308](#) and as a modifier in [r154](#), [r726](#), [r732](#), [r740](#), [r1074](#), [r1230](#), [r1386](#)).

$$\frac{d}{dt}\text{DiL12LG} = v_{725} + v_{731} + v_{739} + v_{1022} + v_{1152} + v_{1308} - v_{154} - v_{726} - v_{732} - v_{740} - v_{1074} - v_{1230} - v_{1386} \quad (3191)$$

8.193 Species DaL00UU

Name DaL00UU

Initial concentration 0 mol · l⁻¹

This species takes part in 16 reactions (as a reactant in [r199](#), [r200](#), [r1127](#), [r1153](#), [r1413](#) and as a product in [r155](#), [r156](#), [r1023](#), [r1049](#), [r1309](#), [r1465](#) and as a modifier in [r199](#), [r200](#), [r1127](#), [r1153](#), [r1413](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL00UU} = & \textcolor{blue}{v_{155}} + \textcolor{blue}{v_{156}} + \textcolor{blue}{v_{1023}} + \textcolor{blue}{v_{1049}} + \textcolor{blue}{v_{1309}} + \textcolor{blue}{v_{1465}} \\ & - \textcolor{blue}{v_{199}} - \textcolor{blue}{v_{200}} - \textcolor{blue}{v_{1127}} - \textcolor{blue}{v_{1153}} - \textcolor{blue}{v_{1413}} \end{aligned} \quad (3192)$$

8.194 Species DaL10UU

Name DaL10UU

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r155](#), [r201](#), [r741](#), [r743](#), [r1128](#), [r1154](#), [r1414](#) and as a product in [r158](#), [r199](#), [r742](#), [r744](#), [r1024](#), [r1050](#), [r1310](#), [r1466](#) and as a modifier in [r155](#), [r201](#), [r741](#), [r743](#), [r1128](#), [r1154](#), [r1414](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL10UU} = & \textcolor{blue}{v_{158}} + \textcolor{blue}{v_{199}} + \textcolor{blue}{v_{742}} + \textcolor{blue}{v_{744}} + \textcolor{blue}{v_{1024}} + \textcolor{blue}{v_{1050}} + \textcolor{blue}{v_{1310}} + \textcolor{blue}{v_{1466}} \\ & - \textcolor{blue}{v_{155}} - \textcolor{blue}{v_{201}} - \textcolor{blue}{v_{741}} - \textcolor{blue}{v_{743}} - \textcolor{blue}{v_{1128}} - \textcolor{blue}{v_{1154}} - \textcolor{blue}{v_{1414}} \end{aligned} \quad (3193)$$

8.195 Species DaL10CU

Name DaL10CU

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r202](#), [r742](#), [r745](#), [r1129](#), [r1155](#), [r1415](#) and as a product in [r159](#), [r741](#), [r746](#), [r1025](#), [r1051](#), [r1311](#), [r1467](#) and as a modifier in [r202](#), [r742](#), [r745](#), [r1129](#), [r1155](#), [r1415](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL10CU} = & \textcolor{blue}{v_{159}} + \textcolor{blue}{v_{741}} + \textcolor{blue}{v_{746}} + \textcolor{blue}{v_{1025}} + \textcolor{blue}{v_{1051}} + \textcolor{blue}{v_{1311}} + \textcolor{blue}{v_{1467}} \\ & - \textcolor{blue}{v_{202}} - \textcolor{blue}{v_{742}} - \textcolor{blue}{v_{745}} - \textcolor{blue}{v_{1129}} - \textcolor{blue}{v_{1155}} - \textcolor{blue}{v_{1415}} \end{aligned} \quad (3194)$$

8.196 Species DaL10LU

Name DaL10LU

Initial concentration 0 mol · l⁻¹

This species takes part in 19 reactions (as a reactant in [r203](#), [r744](#), [r746](#), [r1130](#), [r1156](#), [r1416](#) and as a product in [r160](#), [r743](#), [r745](#), [r1026](#), [r1052](#), [r1312](#), [r1468](#) and as a modifier in [r203](#), [r744](#), [r746](#), [r1130](#), [r1156](#), [r1416](#)).

$$\frac{d}{dt}\text{DaL10LU} = v_{160} + v_{743} + v_{745} + v_{1026} + v_{1052} + v_{1312} + v_{1468} - v_{203} - v_{744} - v_{746} - v_{1130} - v_{1156} - v_{1416} \quad (3195)$$

8.197 Species DaL01UU

Name DaL01UU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r156](#), [r204](#), [r205](#), [r747](#), [r749](#), [r1131](#), [r1157](#), [r1417](#) and as a product in [r157](#), [r163](#), [r200](#), [r748](#), [r750](#), [r1027](#), [r1053](#), [r1313](#), [r1469](#) and as a modifier in [r156](#), [r204](#), [r205](#), [r747](#), [r749](#), [r1131](#), [r1157](#), [r1417](#)).

$$\frac{d}{dt}\text{DaL01UU} = v_{157} + v_{163} + v_{200} + v_{748} + v_{750} + v_{1027} + v_{1053} + v_{1313} + v_{1469} - v_{156} - v_{204} - v_{205} - v_{747} - v_{749} - v_{1131} - v_{1157} - v_{1417} \quad (3196)$$

8.198 Species DaL01UG

Name DaL01UG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r206](#), [r207](#), [r748](#), [r751](#), [r1132](#), [r1158](#), [r1418](#) and as a product in [r161](#), [r164](#), [r747](#), [r752](#), [r1028](#), [r1054](#), [r1314](#), [r1470](#) and as a modifier in [r206](#), [r207](#), [r748](#), [r751](#), [r1132](#), [r1158](#), [r1418](#)).

$$\frac{d}{dt}\text{DaL01UG} = v_{161} + v_{164} + v_{747} + v_{752} + v_{1028} + v_{1054} + v_{1314} + v_{1470} - v_{206} - v_{207} - v_{748} - v_{751} - v_{1132} - v_{1158} - v_{1418} \quad (3197)$$

8.199 Species DaL01UL

Name DaL01UL

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r208](#), [r209](#), [r750](#), [r752](#), [r1133](#), [r1159](#), [r1419](#) and as a product in [r162](#), [r165](#), [r749](#), [r751](#), [r1029](#), [r1055](#), [r1315](#), [r1471](#) and as a modifier in [r208](#), [r209](#), [r750](#), [r752](#), [r1133](#), [r1159](#), [r1419](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL01UL} = & v_{162} + v_{165} + v_{749} + v_{751} + v_{1029} + v_{1055} + v_{1315} + v_{1471} \\ & - v_{208} - v_{209} - v_{750} - v_{752} - v_{1133} - v_{1159} - v_{1419} \end{aligned} \quad (3198)$$

8.200 Species DaL11UU

Name DaL11UU

Initial concentration 0 mol · l⁻¹

This species takes part in 31 reactions (as a reactant in [r157](#), [r158](#), [r210](#), [r753](#), [r755](#), [r757](#), [r759](#), [r1134](#), [r1160](#), [r1420](#) and as a product in [r167](#), [r201](#), [r204](#), [r754](#), [r756](#), [r758](#), [r760](#), [r1030](#), [r1056](#), [r1316](#), [r1472](#) and as a modifier in [r157](#), [r158](#), [r210](#), [r753](#), [r755](#), [r757](#), [r759](#), [r1134](#), [r1160](#), [r1420](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL11UU} = & v_{167} + v_{201} + v_{204} + v_{754} + v_{756} + v_{758} + v_{760} \\ & + v_{1030} + v_{1056} + v_{1316} + v_{1472} - v_{157} - v_{158} - v_{210} \\ & - v_{753} - v_{755} - v_{757} - v_{759} - v_{1134} - v_{1160} - v_{1420} \end{aligned} \quad (3199)$$

8.201 Species DaL11CU

Name DaL11CU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r159](#), [r211](#), [r754](#), [r761](#), [r763](#), [r1135](#), [r1161](#), [r1421](#) and as a product in [r168](#), [r202](#), [r753](#), [r762](#), [r764](#), [r1031](#), [r1057](#), [r1317](#), [r1473](#) and as a modifier in [r159](#), [r211](#), [r754](#), [r761](#), [r763](#), [r1135](#), [r1161](#), [r1421](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL11CU} = & v_{168} + v_{202} + v_{753} + v_{762} + v_{764} + v_{1031} + v_{1057} + v_{1317} + v_{1473} \\ & - v_{159} - v_{211} - v_{754} - v_{761} - v_{763} - v_{1135} - v_{1161} - v_{1421} \end{aligned} \quad (3200)$$

8.202 Species DaL11LU

Name DaL11LU

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in [r160](#), [r212](#), [r756](#), [r762](#), [r765](#), [r767](#), [r1136](#), [r1162](#), [r1422](#) and as a product in [r169](#), [r203](#), [r755](#), [r761](#), [r766](#), [r768](#), [r1032](#), [r1058](#), [r1318](#), [r1474](#) and as a modifier in [r160](#), [r212](#), [r756](#), [r762](#), [r765](#), [r767](#), [r1136](#), [r1162](#), [r1422](#)).

$$\begin{aligned} \frac{d}{dt} \text{DaL11LU} = & v_{169} + v_{203} + v_{755} + v_{761} + v_{766} + v_{768} + v_{1032} + v_{1058} + v_{1318} + v_{1474} \\ & - v_{160} - v_{212} - v_{756} - v_{762} - v_{765} - v_{767} - v_{1136} - v_{1162} - v_{1422} \end{aligned} \quad (3201)$$

8.203 Species DaL11UG

Name DaL11UG

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in [r161](#), [r213](#), [r758](#), [r769](#), [r771](#), [r773](#), [r1137](#), [r1163](#), [r1423](#) and as a product in [r171](#), [r206](#), [r757](#), [r770](#), [r772](#), [r774](#), [r1033](#), [r1059](#), [r1319](#), [r1475](#) and as a modifier in [r161](#), [r213](#), [r758](#), [r769](#), [r771](#), [r773](#), [r1137](#), [r1163](#), [r1423](#)).

$$\begin{aligned} \frac{d}{dt} \text{DaL11UG} = & v_{171} + v_{206} + v_{757} + v_{770} + v_{772} + v_{774} + v_{1033} + v_{1059} + v_{1319} + v_{1475} \\ & - v_{161} - v_{213} - v_{758} - v_{769} - v_{771} - v_{773} - v_{1137} - v_{1163} - v_{1423} \end{aligned} \quad (3202)$$

8.204 Species DaL11UL

Name DaL11UL

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r162](#), [r214](#), [r760](#), [r774](#), [r775](#), [r1138](#), [r1164](#), [r1424](#) and as a product in [r173](#), [r208](#), [r759](#), [r773](#), [r776](#), [r1034](#), [r1060](#), [r1320](#), [r1476](#) and as a modifier in [r162](#), [r214](#), [r760](#), [r774](#), [r775](#), [r1138](#), [r1164](#), [r1424](#)).

$$\begin{aligned} \frac{d}{dt} \text{DaL11UL} = & v_{173} + v_{208} + v_{759} + v_{773} + v_{776} + v_{1034} + v_{1060} + v_{1320} + v_{1476} \\ & - v_{162} - v_{214} - v_{760} - v_{774} - v_{775} - v_{1138} - v_{1164} - v_{1424} \end{aligned} \quad (3203)$$

8.205 Species DaL11CG

Name DaL11CG

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r215](#), [r764](#), [r770](#), [r777](#), [r779](#), [r1139](#), [r1165](#), [r1425](#) and as a product in [r174](#), [r763](#), [r769](#), [r778](#), [r780](#), [r1035](#), [r1061](#), [r1321](#), [r1477](#) and as a modifier in [r215](#), [r764](#), [r770](#), [r777](#), [r779](#), [r1139](#), [r1165](#), [r1425](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL11CG} = & v_{174} + v_{763} + v_{769} + v_{778} + v_{780} + v_{1035} + v_{1061} + v_{1321} + v_{1477} \\ & - v_{215} - v_{764} - v_{770} - v_{777} - v_{779} - v_{1139} - v_{1165} - v_{1425} \end{aligned} \quad (3204)$$

8.206 Species DaL11CC

Name DaL11CC

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r216](#), [r768](#), [r776](#), [r778](#), [r1140](#), [r1166](#), [r1426](#) and as a product in [r175](#), [r767](#), [r775](#), [r777](#), [r1036](#), [r1062](#), [r1322](#), [r1478](#) and as a modifier in [r216](#), [r768](#), [r776](#), [r778](#), [r1140](#), [r1166](#), [r1426](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL11CC} = & v_{175} + v_{767} + v_{775} + v_{777} + v_{1036} + v_{1062} + v_{1322} + v_{1478} \\ & - v_{216} - v_{768} - v_{776} - v_{778} - v_{1140} - v_{1166} - v_{1426} \end{aligned} \quad (3205)$$

8.207 Species DaL11LG

Name DaL11LG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r217](#), [r766](#), [r772](#), [r780](#), [r1141](#), [r1167](#), [r1427](#) and as a product in [r176](#), [r765](#), [r771](#), [r779](#), [r1037](#), [r1063](#), [r1323](#), [r1479](#) and as a modifier in [r217](#), [r766](#), [r772](#), [r780](#), [r1141](#), [r1167](#), [r1427](#)).

$$\begin{aligned} \frac{d}{dt}\text{DaL11LG} = & v_{176} + v_{765} + v_{771} + v_{779} + v_{1037} + v_{1063} + v_{1323} + v_{1479} \\ & - v_{217} - v_{766} - v_{772} - v_{780} - v_{1141} - v_{1167} - v_{1427} \end{aligned} \quad (3206)$$

8.208 Species DaL02UU

Name DaL02UU

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r163](#), [r218](#), [r781](#), [r783](#), [r1142](#), [r1168](#), [r1428](#) and as a product in [r166](#), [r205](#), [r782](#), [r784](#), [r1038](#), [r1064](#), [r1324](#), [r1480](#) and as a modifier in [r163](#), [r218](#), [r781](#), [r783](#), [r1142](#), [r1168](#), [r1428](#)).

$$\frac{d}{dt}\text{DaL02UU} = v_{166} + v_{205} + v_{782} + v_{784} + v_{1038} + v_{1064} + v_{1324} + v_{1480} - v_{163} - v_{218} - v_{781} - v_{783} - v_{1142} - v_{1168} - v_{1428} \quad (3207)$$

8.209 Species DaL02UG

Name DaL02UG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r164](#), [r219](#), [r782](#), [r785](#), [r1143](#), [r1169](#), [r1429](#) and as a product in [r170](#), [r207](#), [r781](#), [r786](#), [r1039](#), [r1065](#), [r1325](#), [r1481](#) and as a modifier in [r164](#), [r219](#), [r782](#), [r785](#), [r1143](#), [r1169](#), [r1429](#)).

$$\frac{d}{dt}\text{DaL02UG} = v_{170} + v_{207} + v_{781} + v_{786} + v_{1039} + v_{1065} + v_{1325} + v_{1481} - v_{164} - v_{219} - v_{782} - v_{785} - v_{1143} - v_{1169} - v_{1429} \quad (3208)$$

8.210 Species DaL02UL

Name DaL02UL

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r165](#), [r220](#), [r784](#), [r786](#), [r1144](#), [r1170](#), [r1430](#) and as a product in [r172](#), [r209](#), [r783](#), [r785](#), [r1040](#), [r1066](#), [r1326](#), [r1482](#) and as a modifier in [r165](#), [r220](#), [r784](#), [r786](#), [r1144](#), [r1170](#), [r1430](#)).

$$\frac{d}{dt}\text{DaL02UL} = v_{172} + v_{209} + v_{783} + v_{785} + v_{1040} + v_{1066} + v_{1326} + v_{1482} - v_{165} - v_{220} - v_{784} - v_{786} - v_{1144} - v_{1170} - v_{1430} \quad (3209)$$

8.211 Species DaL12UU

Name DaL12UU

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in [r166](#), [r167](#), [r787](#), [r789](#), [r791](#), [r793](#), [r1145](#), [r1171](#), [r1431](#) and as a product in [r210](#), [r218](#), [r788](#), [r790](#), [r792](#), [r794](#), [r1041](#), [r1067](#), [r1327](#), [r1483](#) and as a modifier in [r166](#), [r167](#), [r787](#), [r789](#), [r791](#), [r793](#), [r1145](#), [r1171](#), [r1431](#)).

$$\frac{d}{dt}\text{DaL12UU} = v_{210} + v_{218} + v_{788} + v_{790} + v_{792} + v_{794} + v_{1041} + v_{1067} + v_{1327} + v_{1483} \\ - v_{166} - v_{167} - v_{787} - v_{789} - v_{791} - v_{793} - v_{1145} - v_{1171} - v_{1431} \quad (3210)$$

8.212 Species DaL12CU

Name DaL12CU

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r168](#), [r788](#), [r795](#), [r797](#), [r1146](#), [r1172](#), [r1432](#) and as a product in [r211](#), [r787](#), [r796](#), [r798](#), [r1042](#), [r1068](#), [r1328](#), [r1484](#) and as a modifier in [r168](#), [r788](#), [r795](#), [r797](#), [r1146](#), [r1172](#), [r1432](#)).

$$\frac{d}{dt}\text{DaL12CU} = v_{211} + v_{787} + v_{796} + v_{798} + v_{1042} + v_{1068} + v_{1328} + v_{1484} \\ - v_{168} - v_{788} - v_{795} - v_{797} - v_{1146} - v_{1172} - v_{1432} \quad (3211)$$

8.213 Species DaL12LU

Name DaL12LU

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r169](#), [r790](#), [r796](#), [r799](#), [r801](#), [r1147](#), [r1173](#), [r1433](#) and as a product in [r212](#), [r789](#), [r795](#), [r800](#), [r802](#), [r1043](#), [r1069](#), [r1329](#), [r1485](#) and as a modifier in [r169](#), [r790](#), [r796](#), [r799](#), [r801](#), [r1147](#), [r1173](#), [r1433](#)).

$$\frac{d}{dt}\text{DaL12LU} = v_{212} + v_{789} + v_{795} + v_{800} + v_{802} + v_{1043} + v_{1069} + v_{1329} + v_{1485} \\ - v_{169} - v_{790} - v_{796} - v_{799} - v_{801} - v_{1147} - v_{1173} - v_{1433} \quad (3212)$$

8.214 Species DaL12UG

Name DaL12UG

Initial concentration 0 mol · l⁻¹

This species takes part in 28 reactions (as a reactant in [r170](#), [r171](#), [r792](#), [r803](#), [r805](#), [r807](#), [r1148](#), [r1174](#), [r1434](#) and as a product in [r213](#), [r219](#), [r791](#), [r804](#), [r806](#), [r808](#), [r1044](#), [r1070](#), [r1330](#), [r1486](#) and as a modifier in [r170](#), [r171](#), [r792](#), [r803](#), [r805](#), [r807](#), [r1148](#), [r1174](#), [r1434](#)).

$$\begin{aligned} \frac{d}{dt} \text{DaL12UG} = & v_{213} + v_{219} + v_{791} + v_{804} + v_{806} + v_{808} + v_{1044} + v_{1070} + v_{1330} + v_{1486} \\ & - v_{170} - v_{171} - v_{792} - v_{803} - v_{805} - v_{807} - v_{1148} - v_{1174} - v_{1434} \end{aligned} \quad (3213)$$

8.215 Species DaL12UL

Name DaL12UL

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r172](#), [r173](#), [r794](#), [r808](#), [r809](#), [r1149](#), [r1175](#), [r1435](#) and as a product in [r214](#), [r220](#), [r793](#), [r807](#), [r810](#), [r1045](#), [r1071](#), [r1331](#), [r1487](#) and as a modifier in [r172](#), [r173](#), [r794](#), [r808](#), [r809](#), [r1149](#), [r1175](#), [r1435](#)).

$$\begin{aligned} \frac{d}{dt} \text{DaL12UL} = & v_{214} + v_{220} + v_{793} + v_{807} + v_{810} + v_{1045} + v_{1071} + v_{1331} + v_{1487} \\ & - v_{172} - v_{173} - v_{794} - v_{808} - v_{809} - v_{1149} - v_{1175} - v_{1435} \end{aligned} \quad (3214)$$

8.216 Species DaL12CG

Name DaL12CG

Initial concentration 0 mol · l⁻¹

This species takes part in 25 reactions (as a reactant in [r174](#), [r798](#), [r804](#), [r811](#), [r813](#), [r1150](#), [r1176](#), [r1436](#) and as a product in [r215](#), [r797](#), [r803](#), [r812](#), [r814](#), [r1046](#), [r1072](#), [r1332](#), [r1488](#) and as a modifier in [r174](#), [r798](#), [r804](#), [r811](#), [r813](#), [r1150](#), [r1176](#), [r1436](#)).

$$\begin{aligned} \frac{d}{dt} \text{DaL12CG} = & v_{215} + v_{797} + v_{803} + v_{812} + v_{814} + v_{1046} + v_{1072} + v_{1332} + v_{1488} \\ & - v_{174} - v_{798} - v_{804} - v_{811} - v_{813} - v_{1150} - v_{1176} - v_{1436} \end{aligned} \quad (3215)$$

8.217 Species DaL12CC

Name DaL12CC

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r175](#), [r802](#), [r810](#), [r812](#), [r1151](#), [r1177](#), [r1437](#) and as a product in [r216](#), [r801](#), [r809](#), [r811](#), [r1047](#), [r1073](#), [r1333](#), [r1489](#) and as a modifier in [r175](#), [r802](#), [r810](#), [r812](#), [r1151](#), [r1177](#), [r1437](#)).

$$\frac{d}{dt}\text{DaL12CC} = v_{216} + v_{801} + v_{809} + v_{811} + v_{1047} + v_{1073} + v_{1333} + v_{1489} - v_{175} - v_{802} - v_{810} - v_{812} - v_{1151} - v_{1177} - v_{1437} \quad (3216)$$

8.218 Species DaL12LG

Name DaL12LG

Initial concentration 0 mol · l⁻¹

This species takes part in 22 reactions (as a reactant in [r176](#), [r800](#), [r806](#), [r814](#), [r1152](#), [r1178](#), [r1438](#) and as a product in [r217](#), [r799](#), [r805](#), [r813](#), [r1048](#), [r1074](#), [r1334](#), [r1490](#) and as a modifier in [r176](#), [r800](#), [r806](#), [r814](#), [r1152](#), [r1178](#), [r1438](#)).

$$\frac{d}{dt}\text{DaL12LG} = v_{217} + v_{799} + v_{805} + v_{813} + v_{1048} + v_{1074} + v_{1334} + v_{1490} - v_{176} - v_{800} - v_{806} - v_{814} - v_{1152} - v_{1178} - v_{1438} \quad (3217)$$

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