\[ E_1(t, 1 \text{ pM}) = P_{25} Q^+ (0.1, t) Q^- (2.1, t) \]
\[ E_2 = P_3 \frac{P_{37}^2 P_{43}^2}{P_{17} P_{37} P_{43} + P_{43}^2 + P_{37} P_{43}} \]
\[ E_3 = P_4 \frac{P_{38} P_{44}^2}{P_{18} P_{38} P_{44} + P_{44}^2 + P_{38} P_{44}} \]
\[ E_4 = P_7 \frac{P_6 P_{45} + P_5 P_{45} + P_{45}^2}{P_5 + P_{45}^2 + 2 P_6} \]
\[ E_5 = P_10 \frac{P_9 P_{46} + P_8 P_{46} + P_{46}^2}{P_8 + P_{46}^2 + 2 P_9} \]
\[ E_6 = P_{48} P_{19} \]
\[ E_7 = P_{49} P_{20} \]
\[ E_8 = P_{50} P_{23} \]
\[ E_9(t) = Q^+ (0.1, t) \]
\[ Q^+ (\tau, t) = \frac{1000}{1000 + 100 \exp(\tau - t)} \]
\[ Q^- (\tau, t) = \frac{1000}{1000 + 100 \exp(t - \tau)} \]