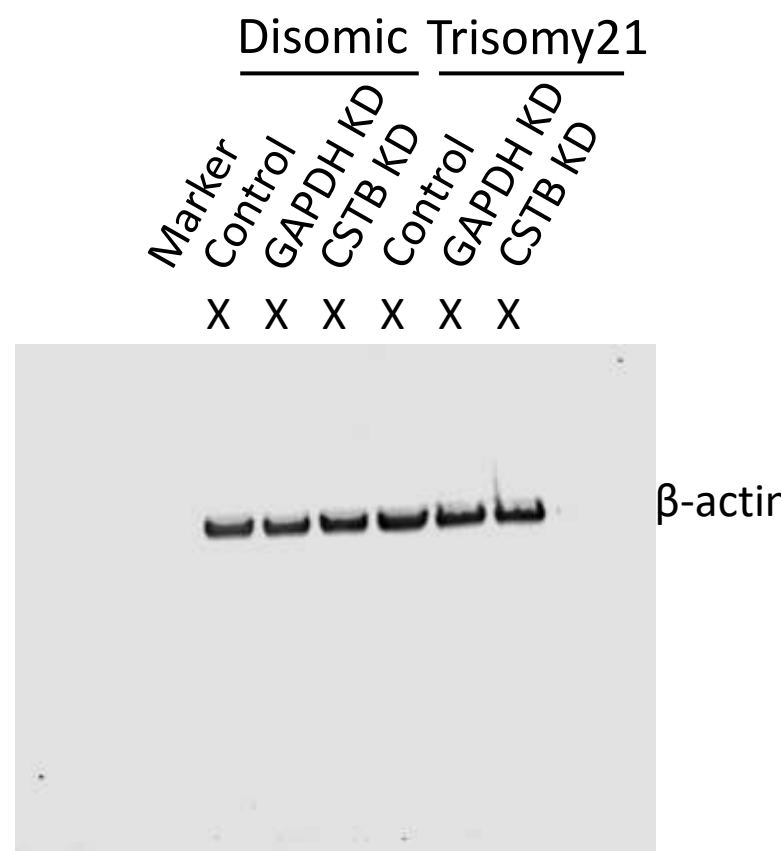
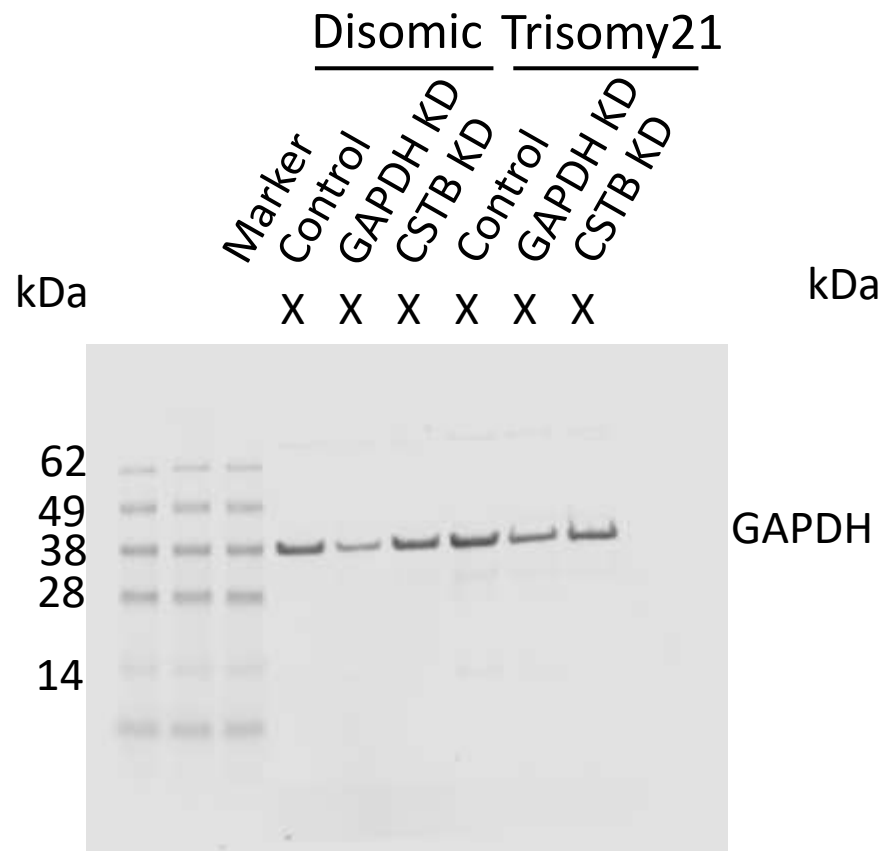
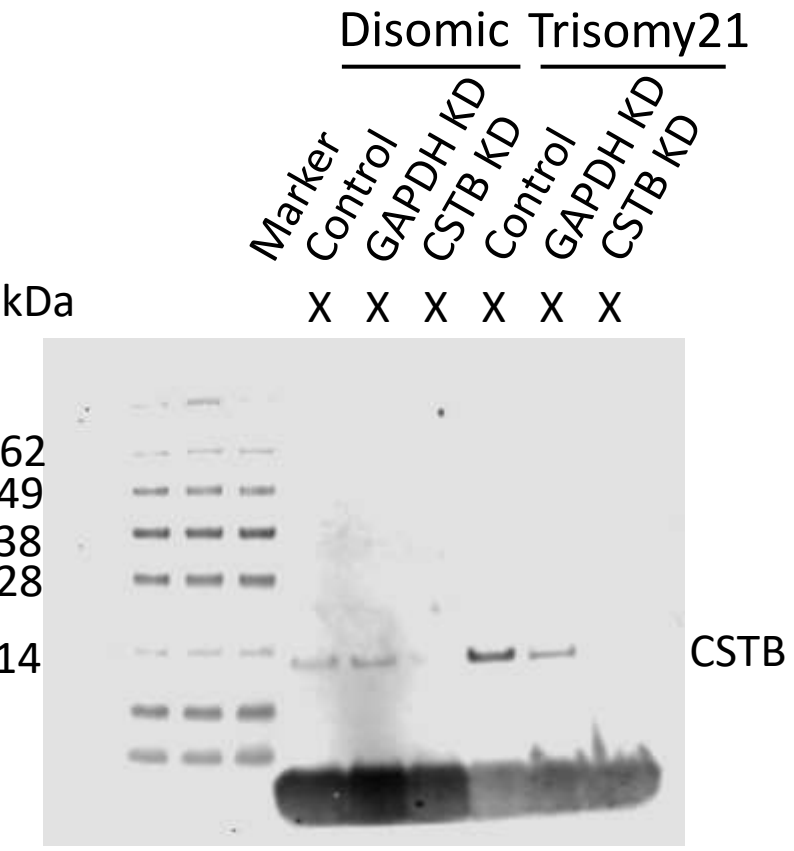


For Figure 1

PVDF membranes

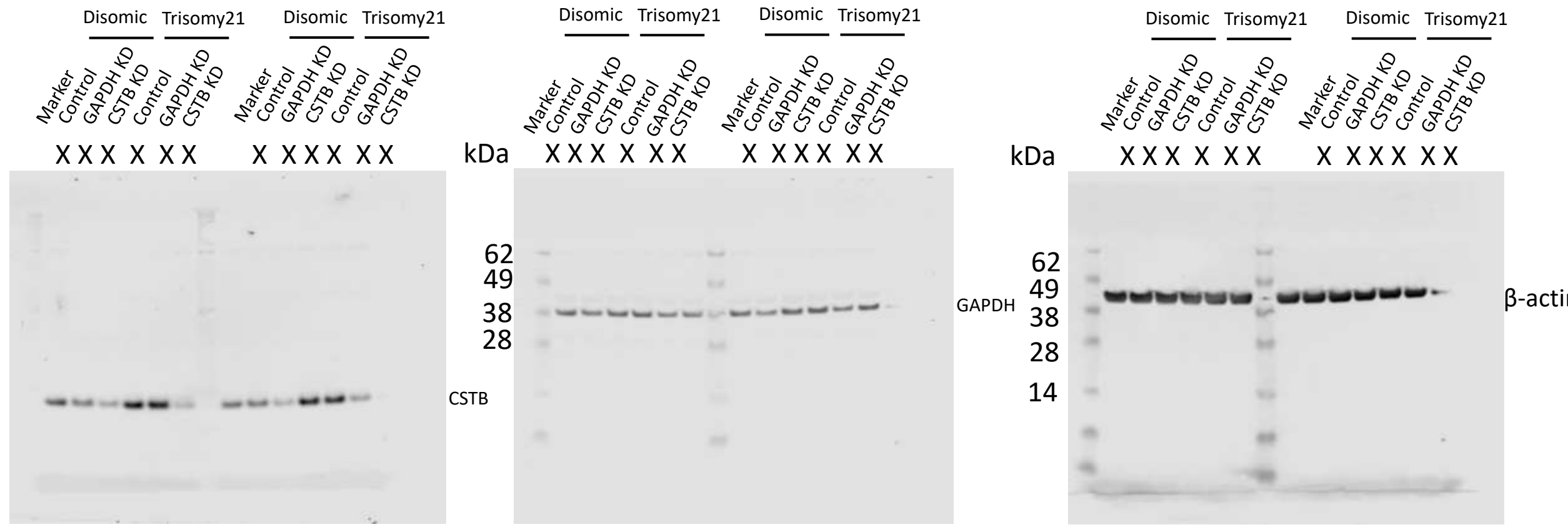
By Odyssey CLx imaging system (Yixing Wu)



For Figure 1

PVDF membranes

By Odyssey CLx imaging system (Yixing Wu)



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

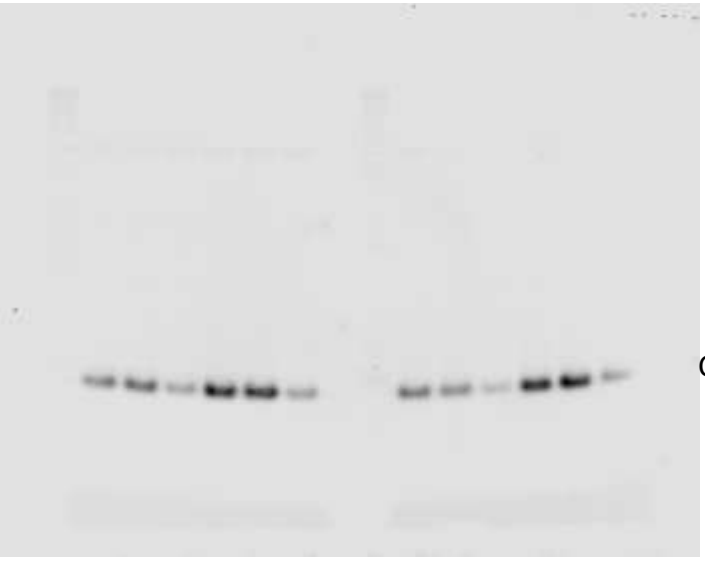
For Figure 1

PVDF membranes

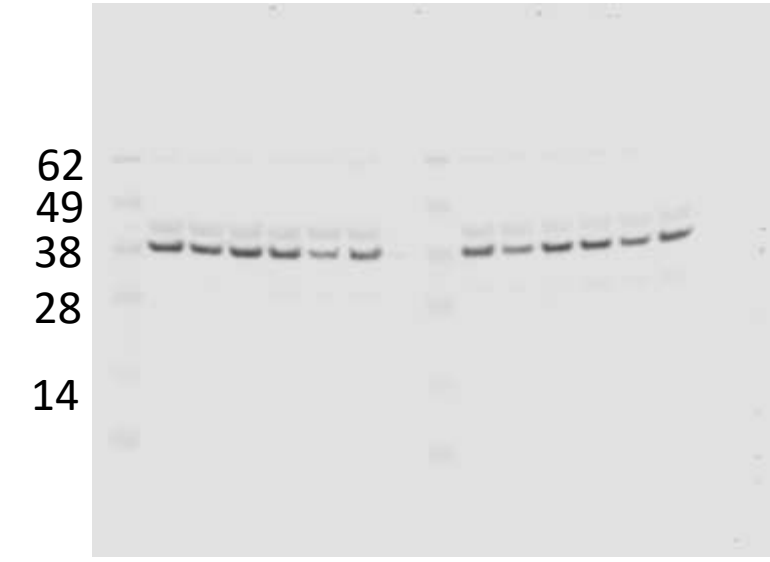
By Odyssey CLx imaging system (Yixing Wu)

PVDF membranes

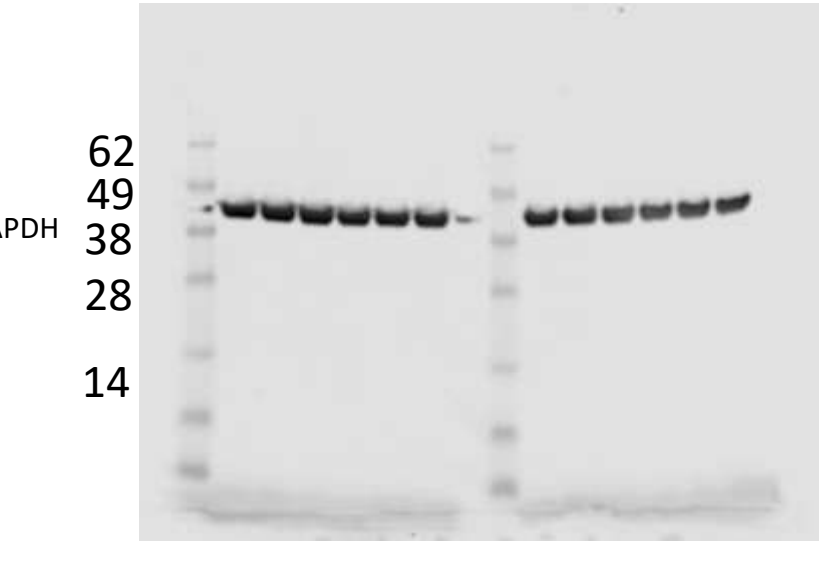
<u>Disomic</u>				<u>Trisomy21</u>			<u>Disomic</u>				<u>Trisomy21</u>		
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X	X	X	X	X	X	X	X



<u>Disomic</u>				<u>Trisomy21</u>			<u>Disomic</u>				<u>Trisomy21</u>		
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X	X	X	X	X	X	X	X



<u>Disomic</u>				<u>Trisomy21</u>			<u>Disomic</u>				<u>Trisomy21</u>		
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X	X	X	X	X	X	X	X



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

For Figure 1

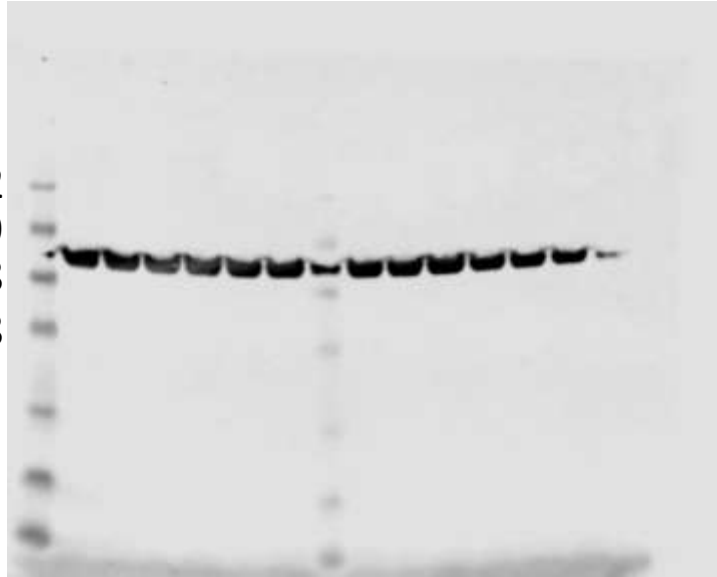
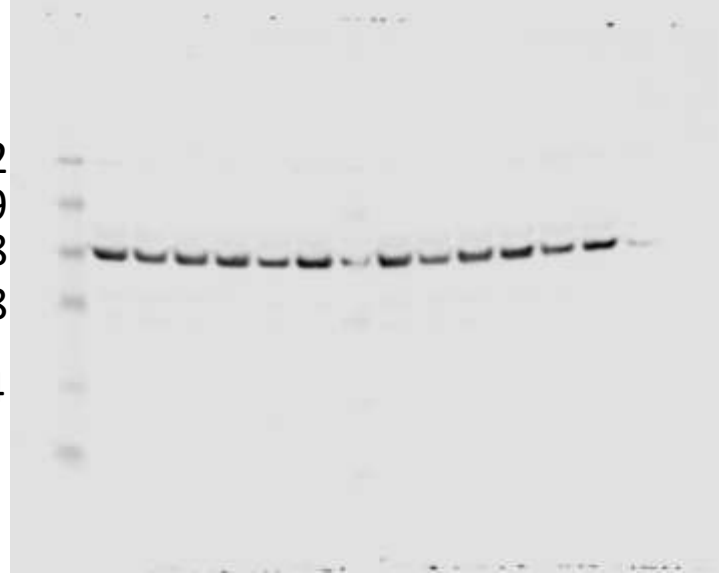
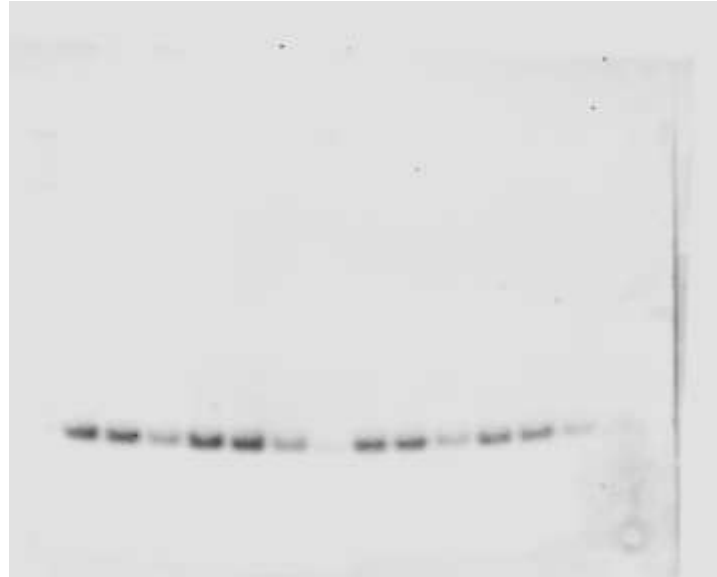
PVDF membranes

By Odyssey CLx imaging system (Yixing Wu)

<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	
X	X	X	X	X	X	X	

<u>Disomic</u>				<u>Trisomy21</u>				<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD		Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	
X	X	X	X	X	X	X		X	X	X	X	X	X	X	

<u>Disomic</u>				<u>Trisomy21</u>				<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD		Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	
X	X	X	X	X	X	X		X	X	X	X	X	X	X	



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

For Figure 1

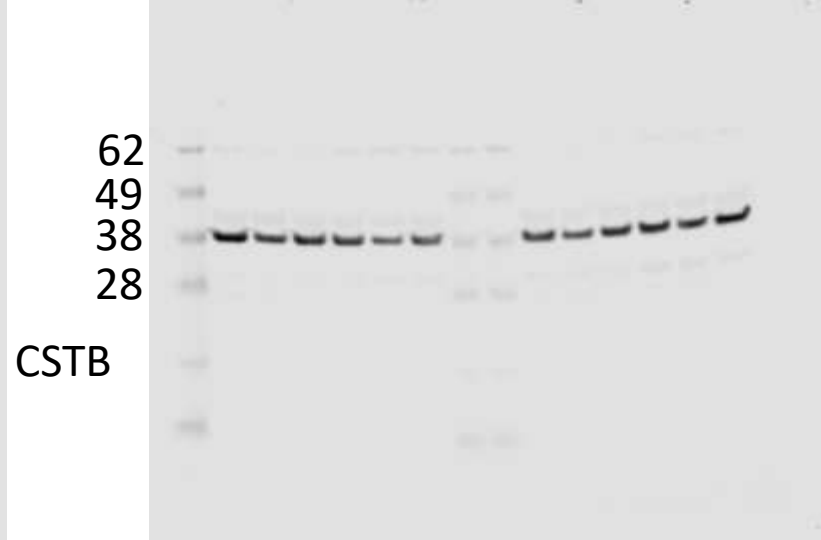
PVDF membranes

By Odyssey CLx imaging system (Yixing Wu)

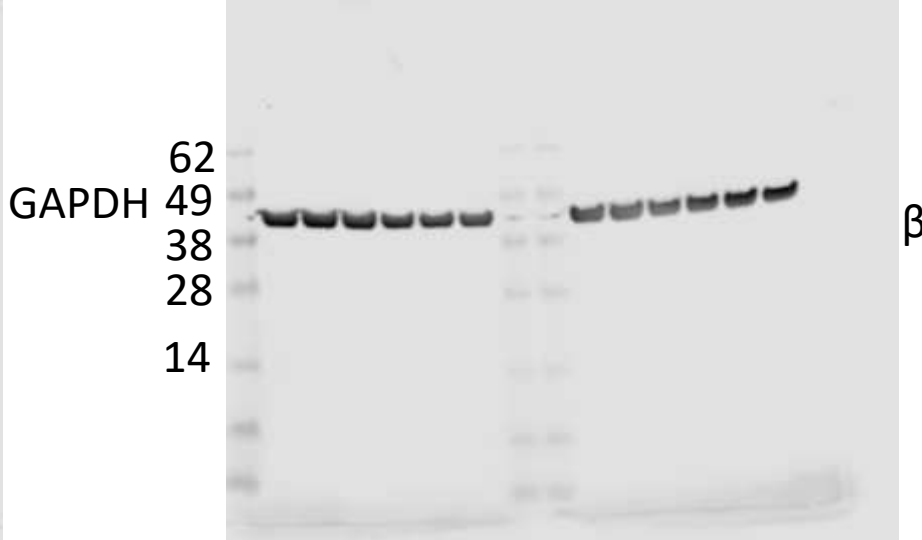
<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Marker	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X	X



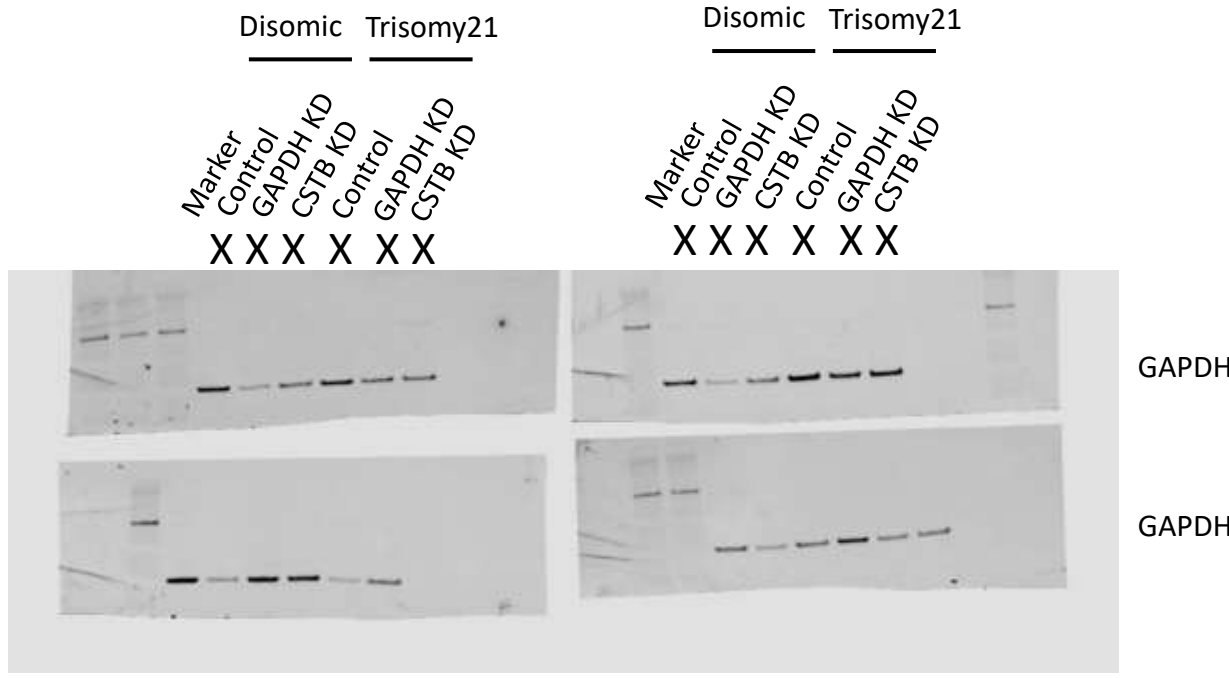
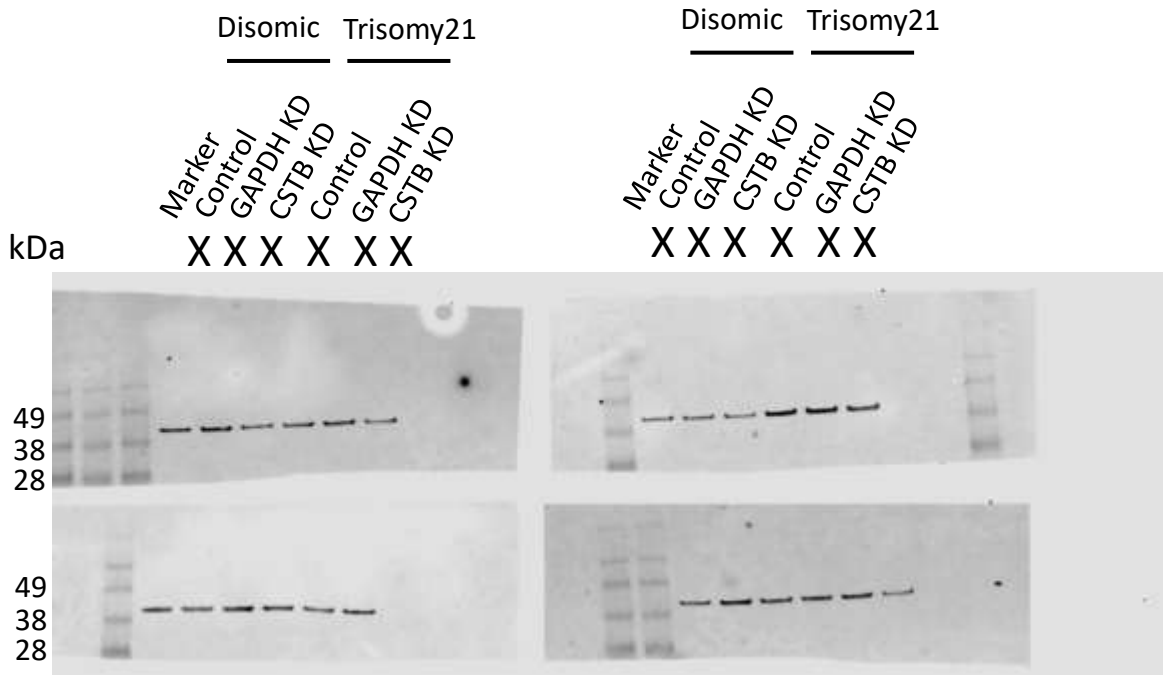
<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Marker	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X	X



<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Marker	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X	X



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

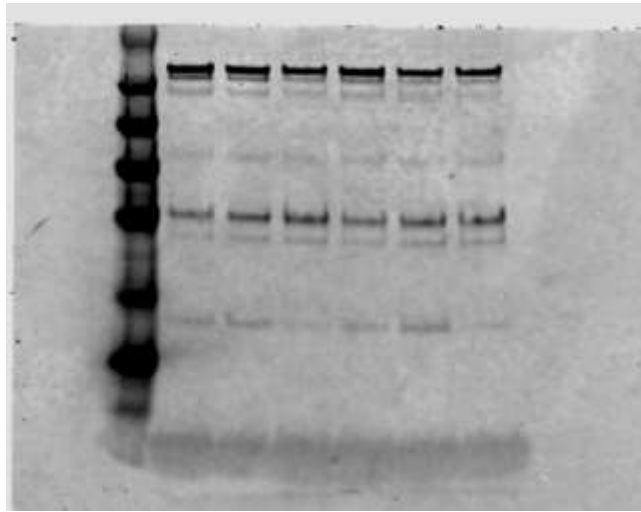
Disomic Trisomy21

Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

X X X X X X

kDa

62
49
38
28
14



pro-CatB
mat-CatB

Disomic Trisomy21

Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

kDa

GAPDH



Disomic Trisomy21

Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

kDa

β -actin



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

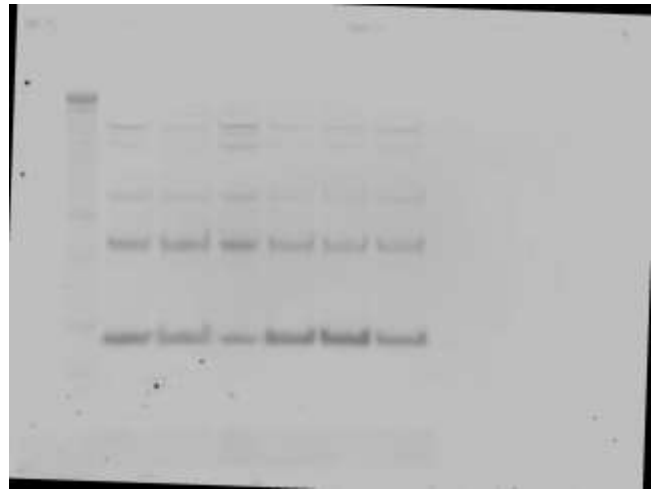
Disomic Trisomy21

Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

X X X X X X

kDa

62
38
28
14

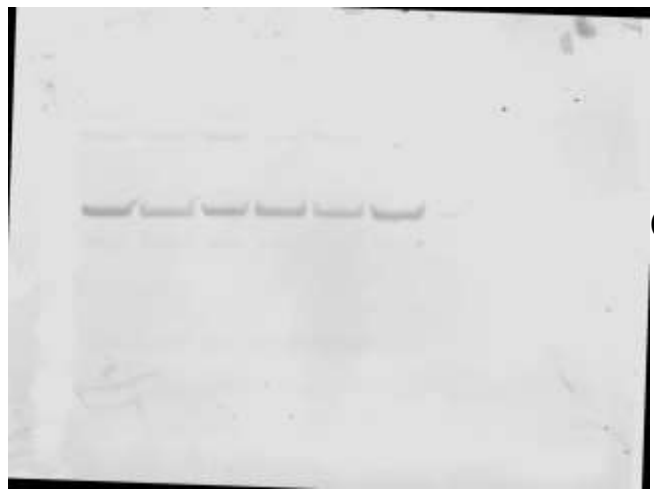


Pro-CatB
CatB
CSTB

Disomic Trisomy21

Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

X X X X X X

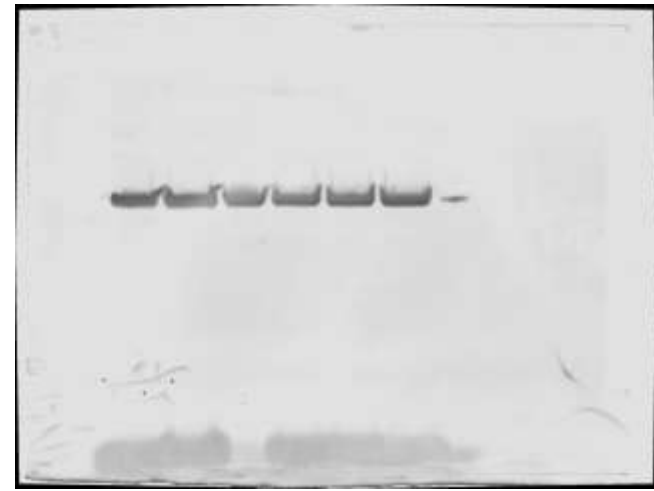


GAPDH

Disomic Trisomy21

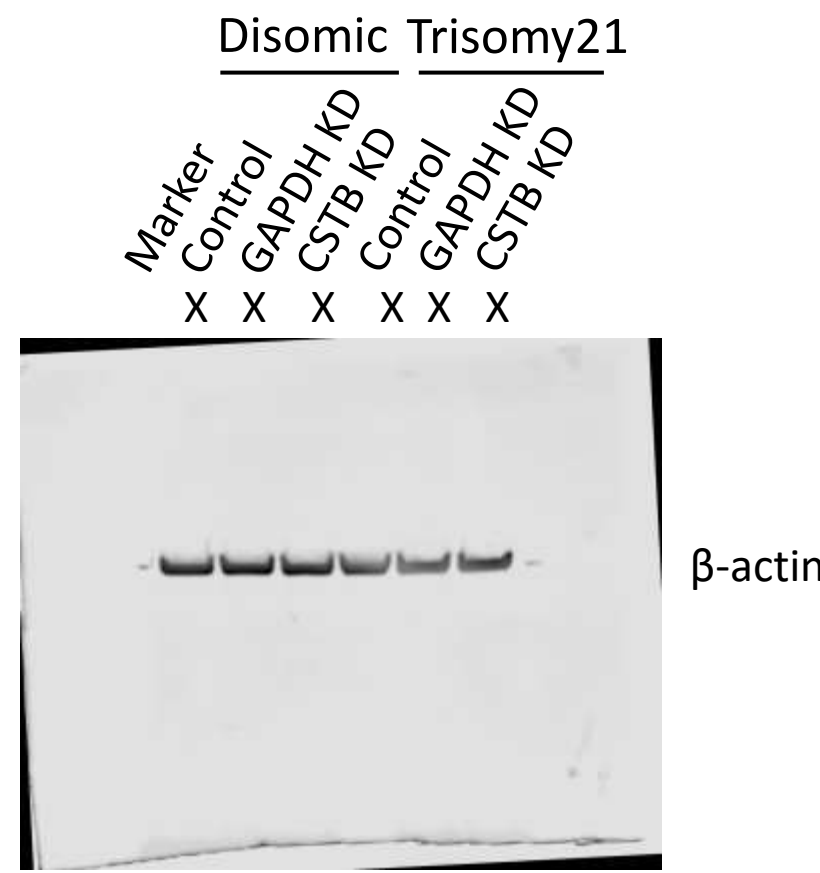
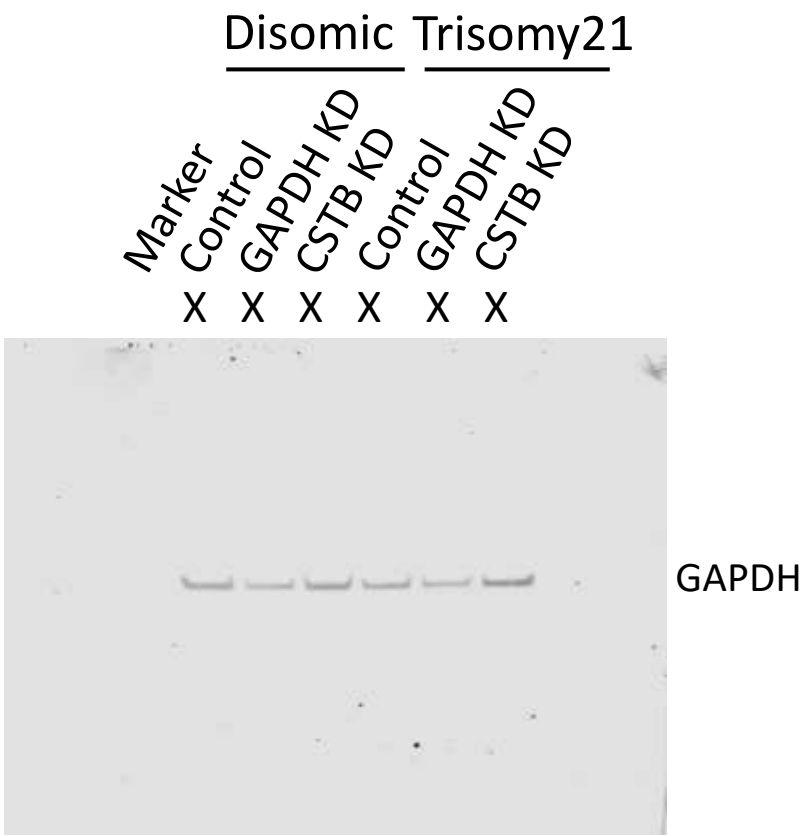
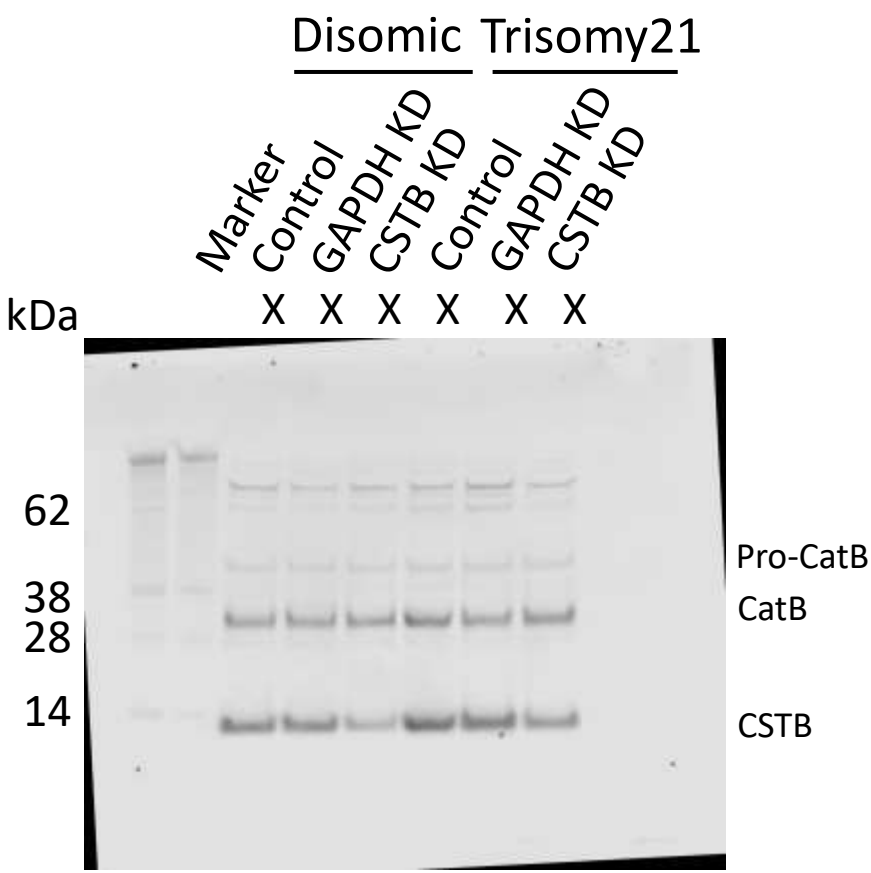
Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

X X X X X X



β -actin

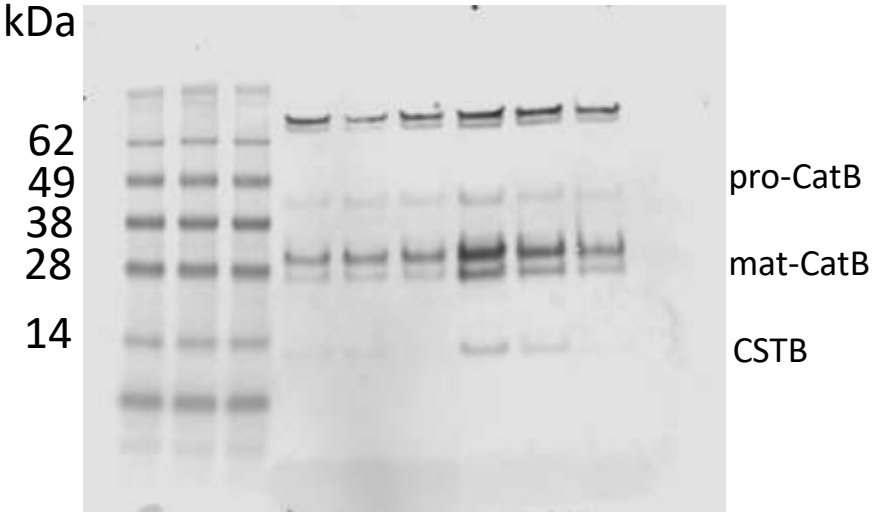
X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

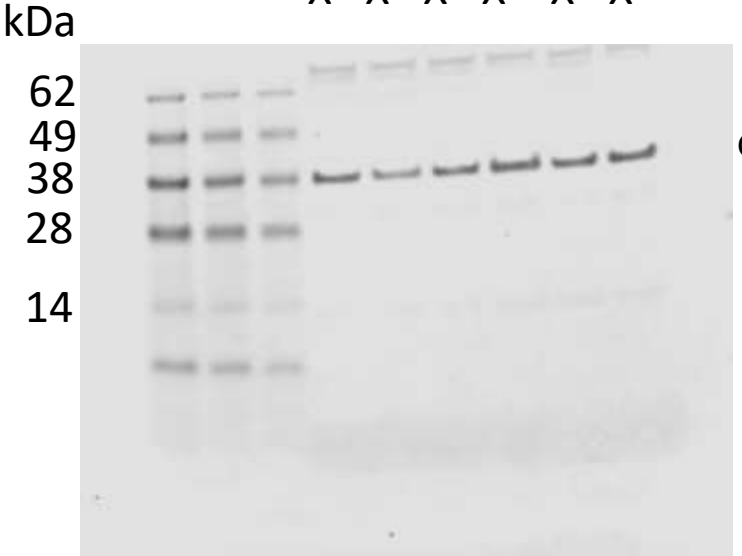
Disomic Trisomy21

Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X



Disomic Trisomy21

Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X



Disomic Trisomy21

Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD
X	X	X	X	X	X	X



The same blot as the beta-actin blot for CSTB n1 (Figure 1)

X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

Disomic Trisomy21

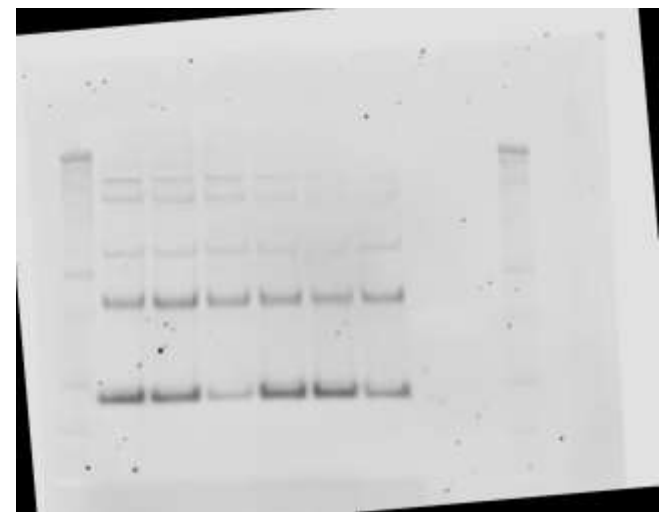
Marker
 Control
 GAPDH KD
 CSTB KD
 Control
 GAPDH KD
 CSTB KD
 X X X X X X

Disomic Trisomy21

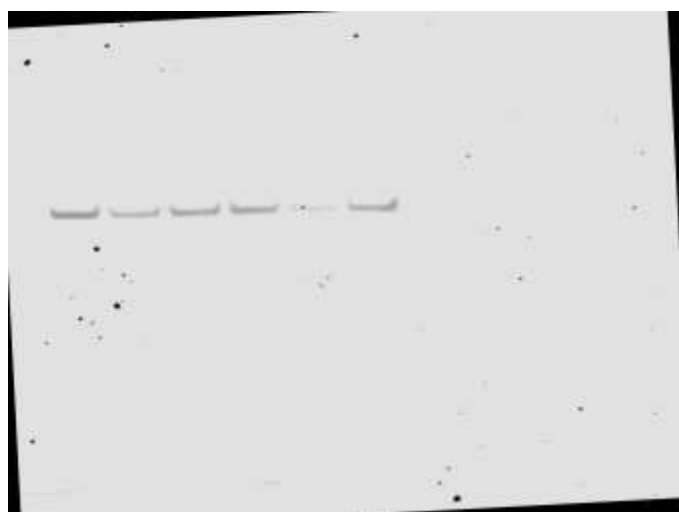
Marker
 Control
 GAPDH KD
 CSTB KD
 Control
 GAPDH KD
 CSTB KD
 X X X X X X

Disomic Trisomy21

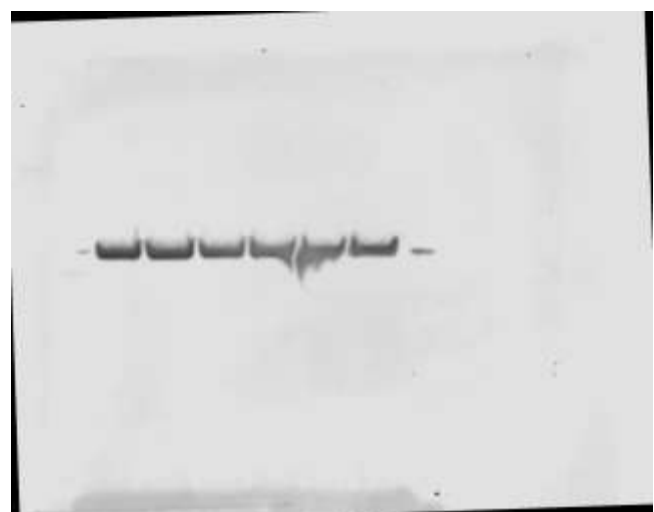
Marker
 Control
 GAPDH KD
 CSTB KD
 Control
 GAPDH KD
 CSTB KD
 X X X X X X



Pro-CatB
 CatB
 CSTB

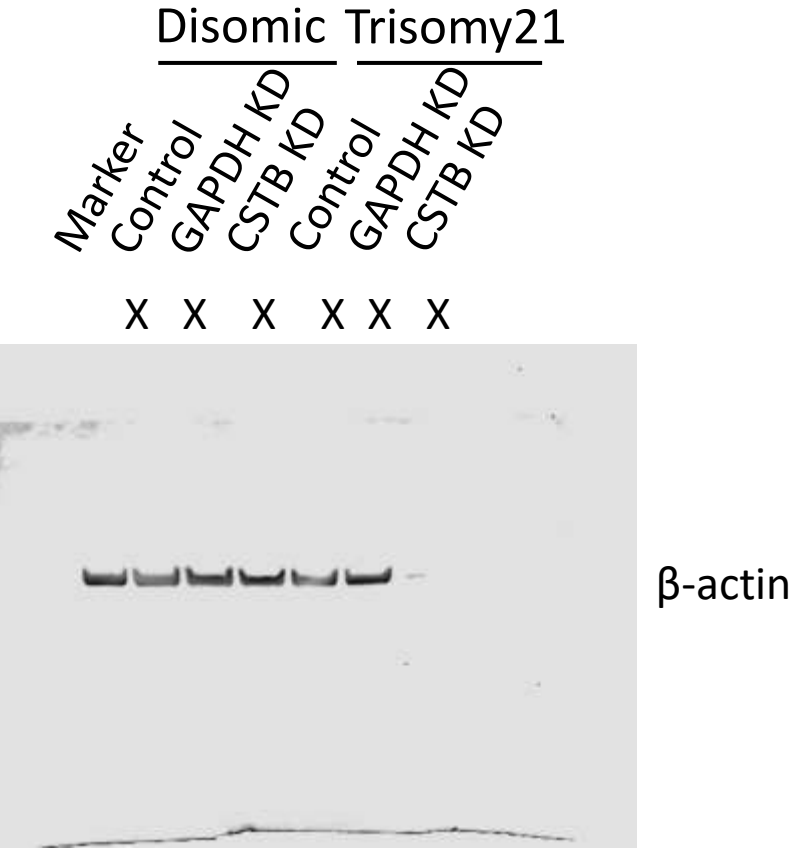
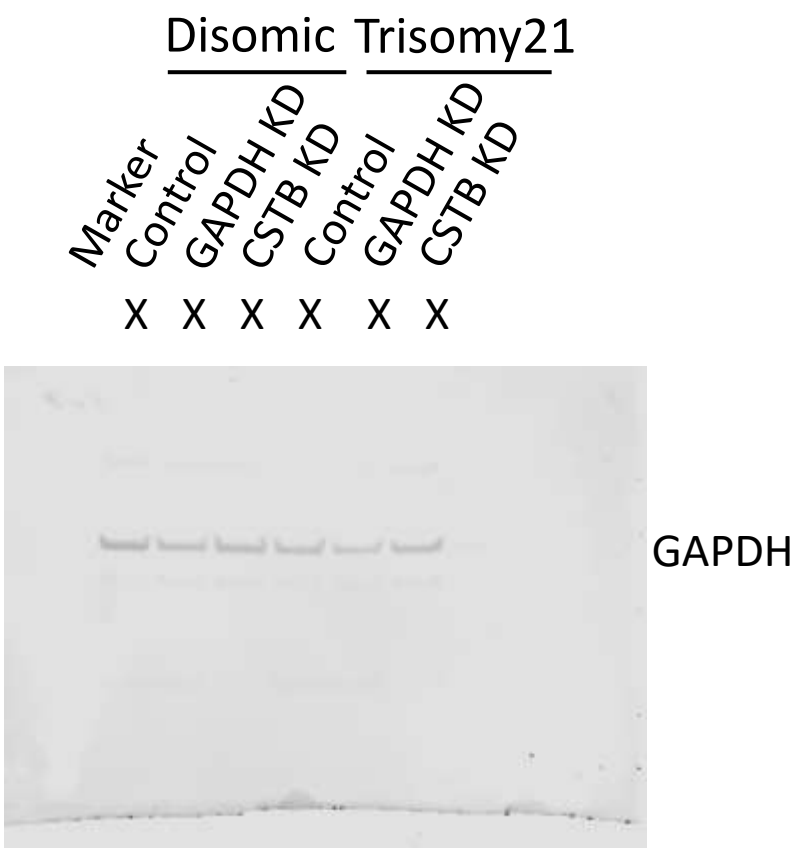
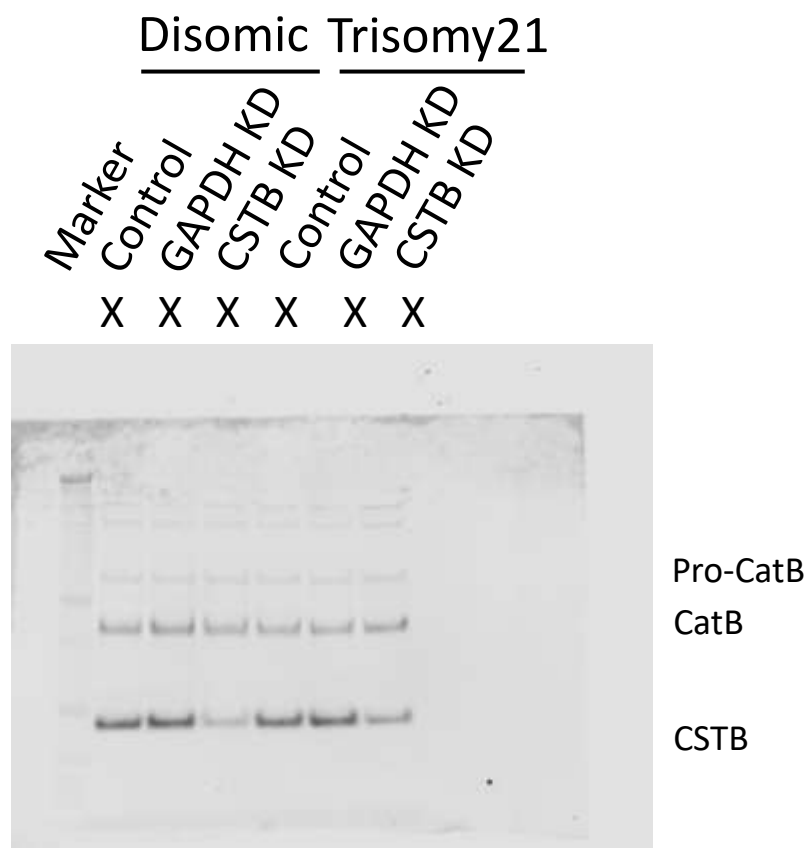


GAPDH



β-actin

X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.



X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

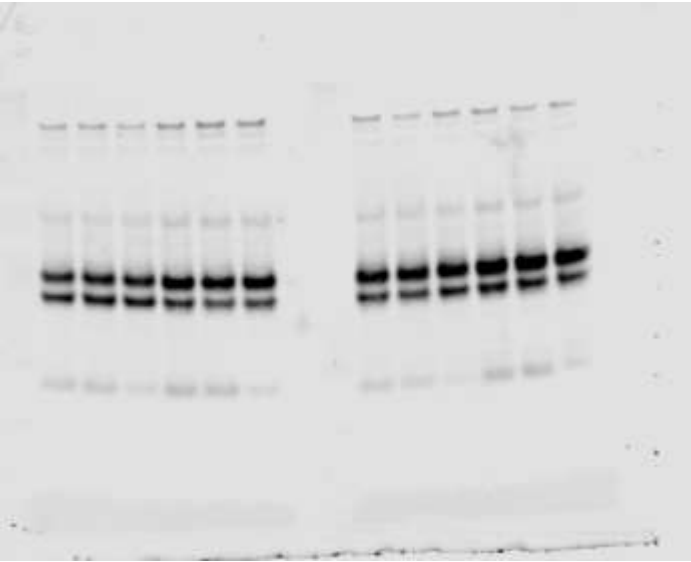
For Figure 2a

PVDF membranes

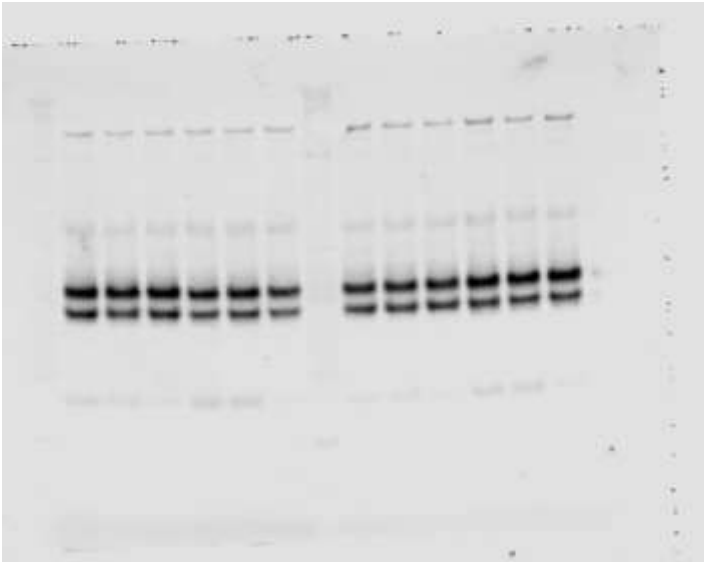
By Odyssey CLx imaging system (Yixing Wu)

<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	
X	X	X	X	X	X	X	

<u>Disomic</u>				<u>Trisomy21</u>				<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD		Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	
X	X	X	X	X	X	X		X	X	X	X	X	X	X	



pro-CatB
mat-CatB



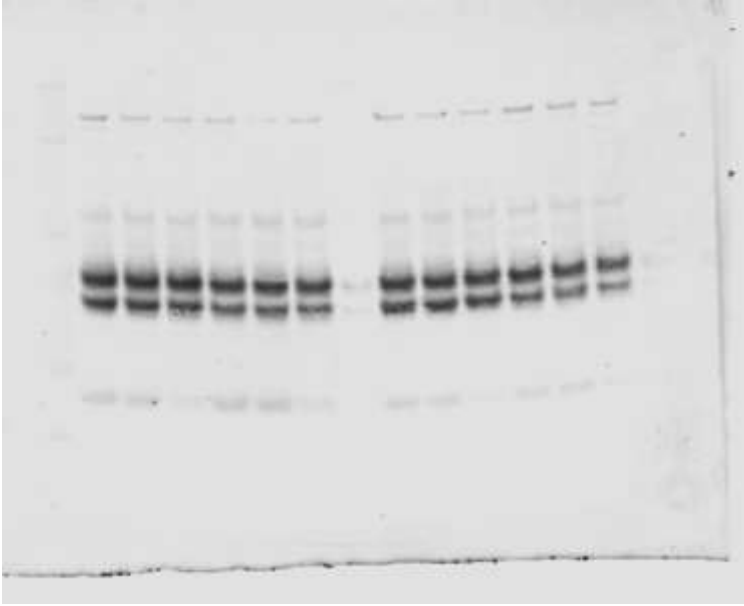
pro-CatB
mat-CatB

For Figure 2a

PVDF membranes

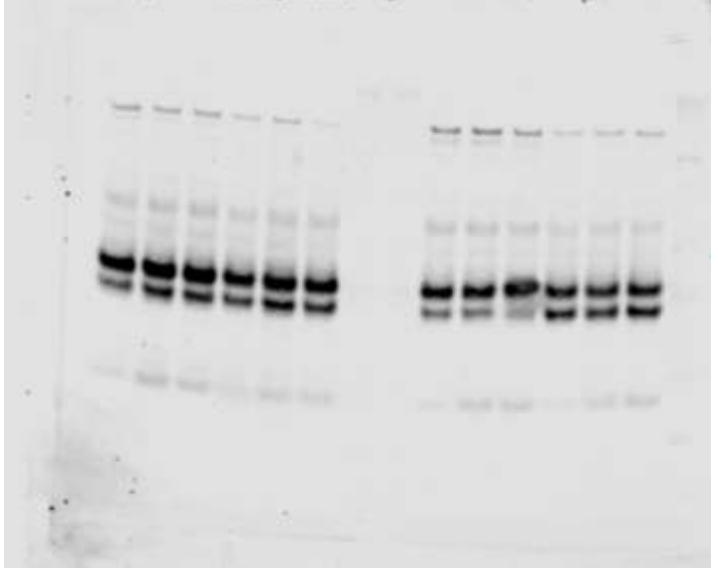
By Odyssey CLx imaging system (Yixing Wu)

<u>Disomic</u>				<u>Trisomy21</u>				<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Control	Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Control
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

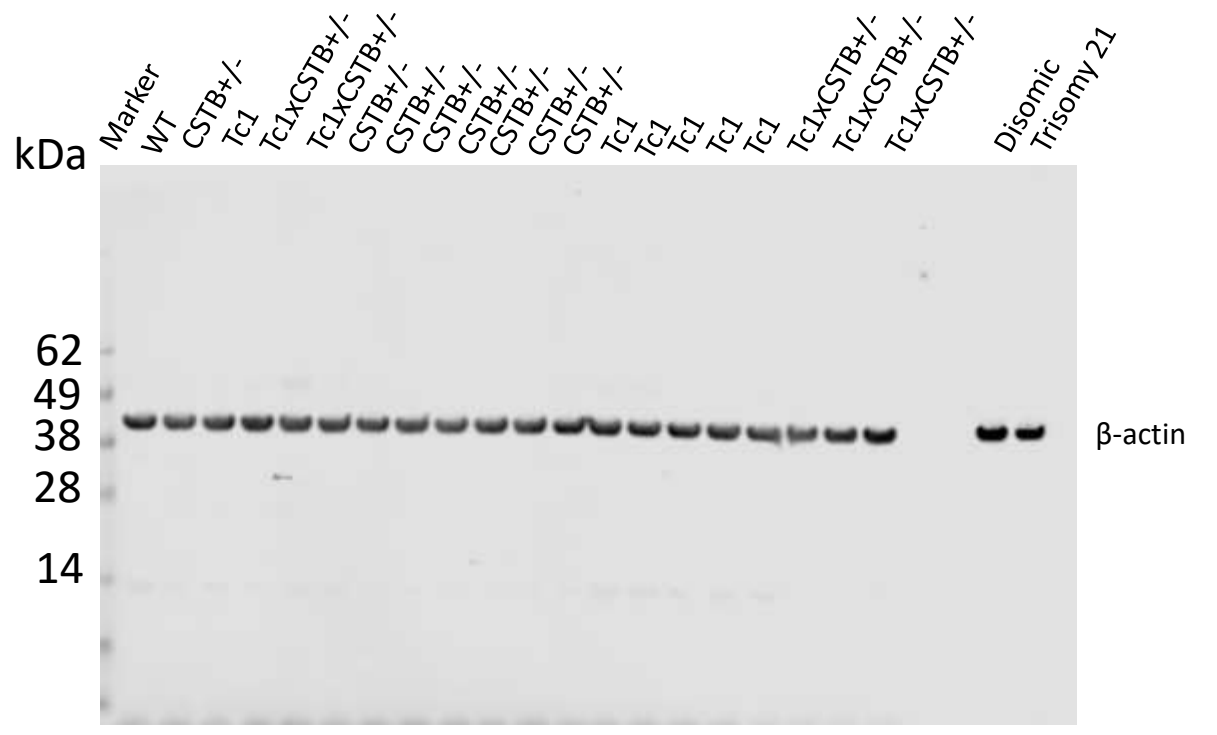
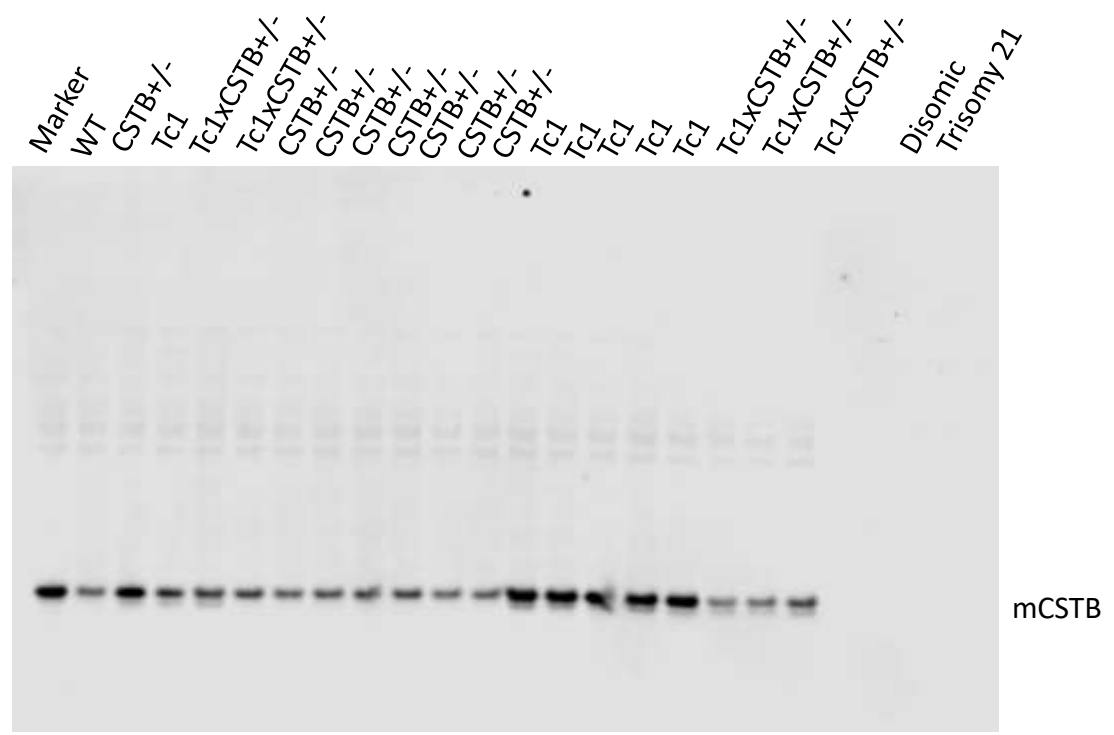


pro-CatB
mat-CatB

<u>Disomic</u>				<u>Trisomy21</u>				<u>Disomic</u>				<u>Trisomy21</u>			
Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Control	Marker	Control	GAPDH KD	CSTB KD	Control	GAPDH KD	CSTB KD	Control
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X



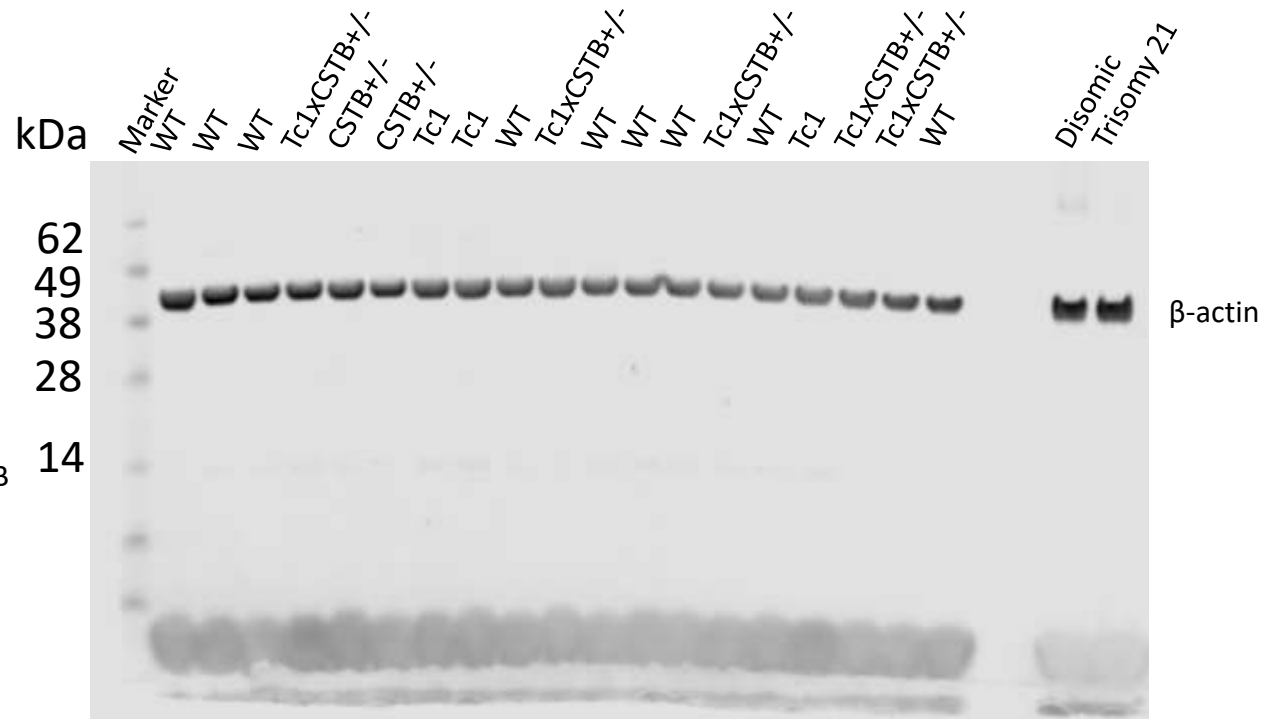
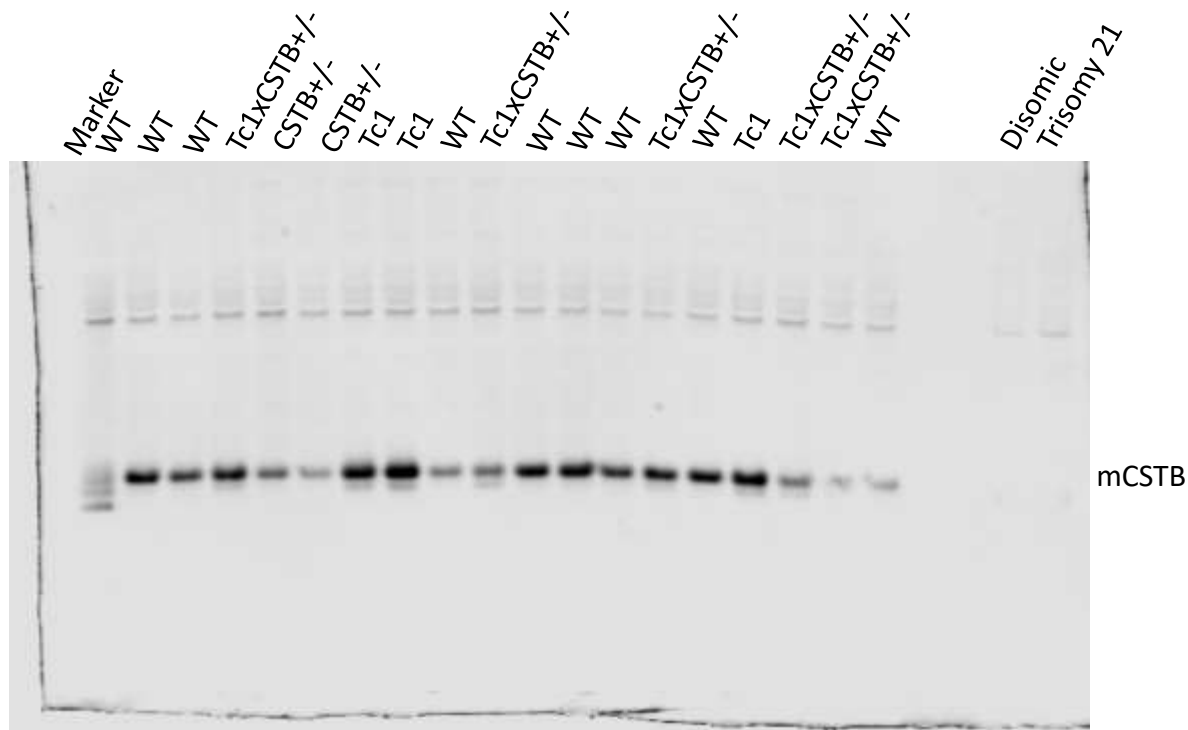
pro-CatB
mat-CatB

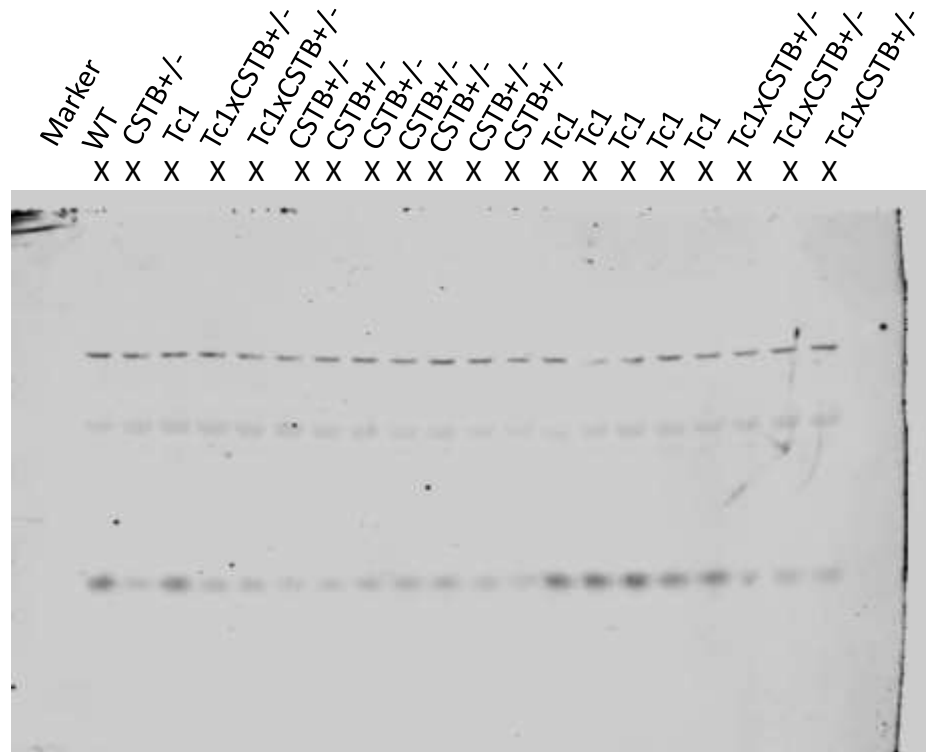


For Figure 3a

PVDF membranes

By Odyssey CLx imaging system (Yixing Wu)

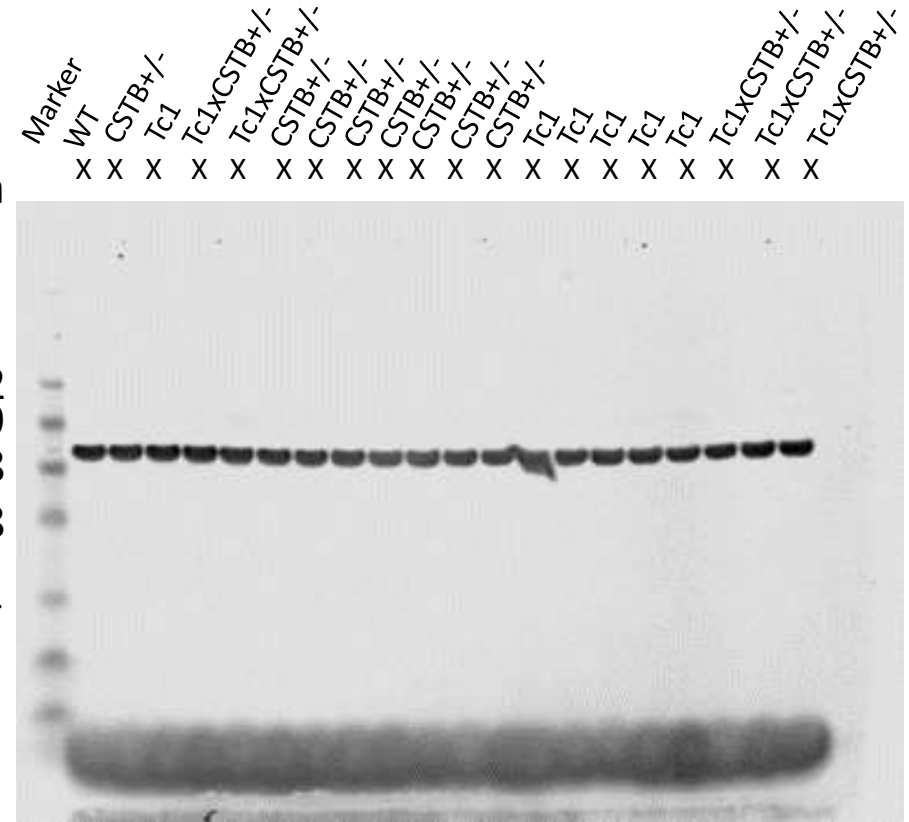




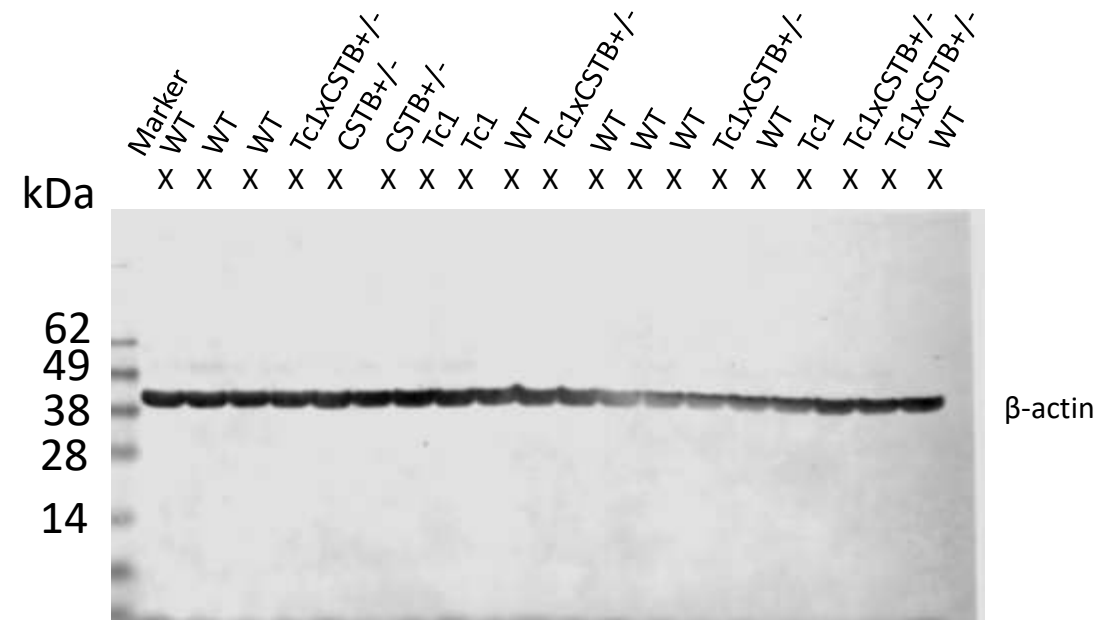
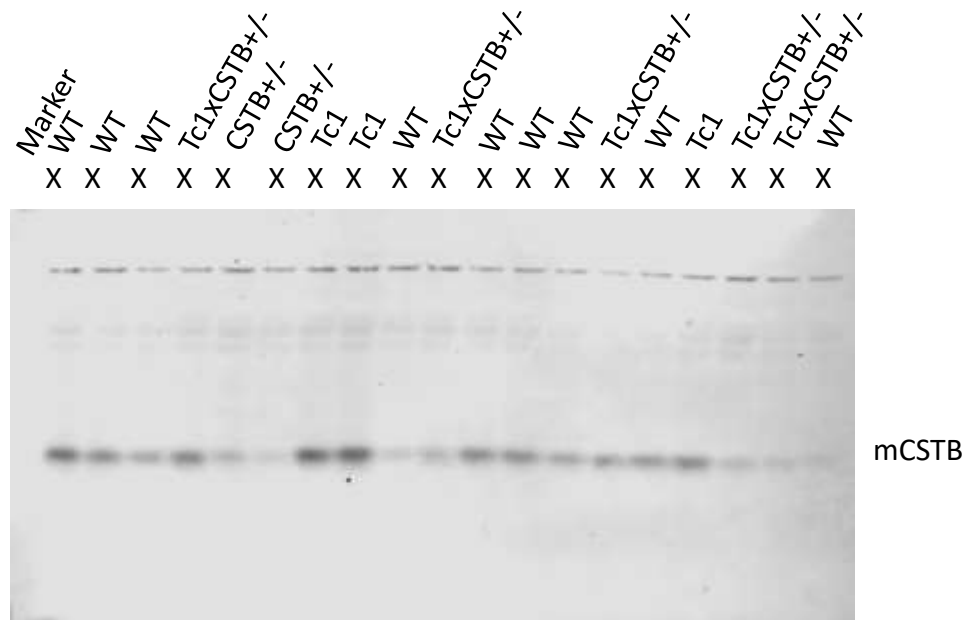
mCSTB

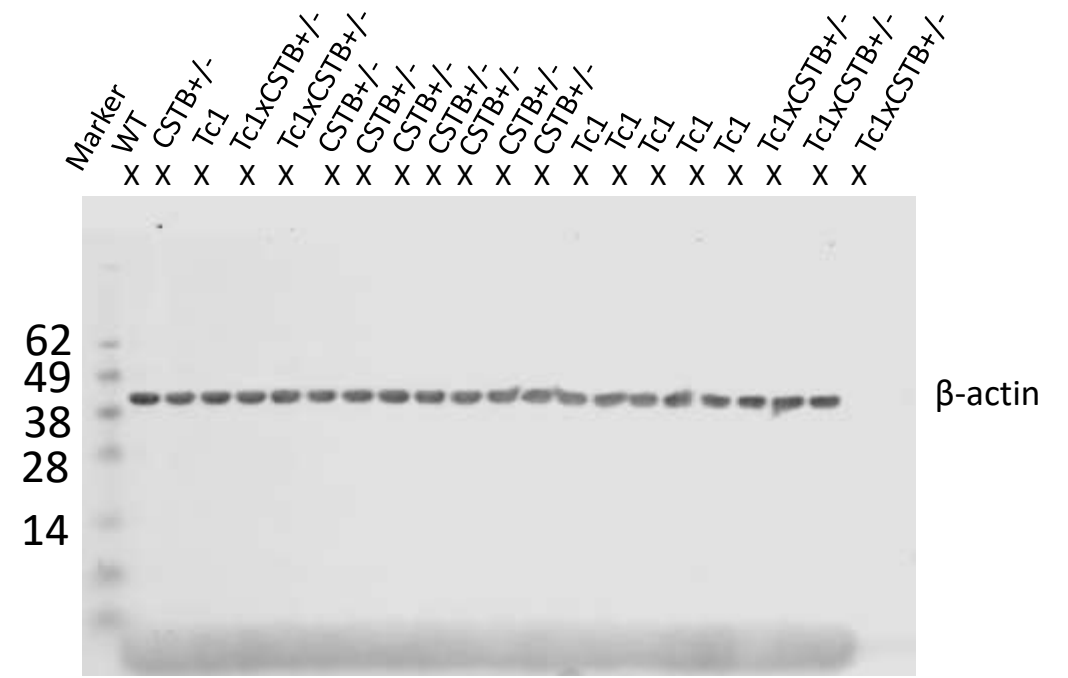
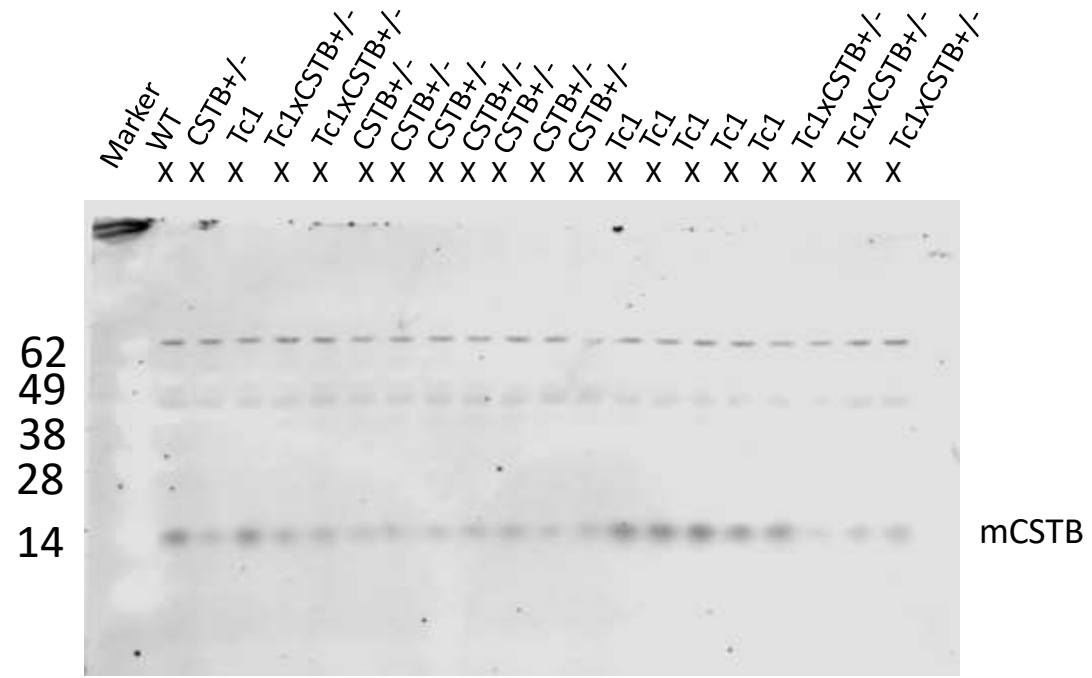
kDa

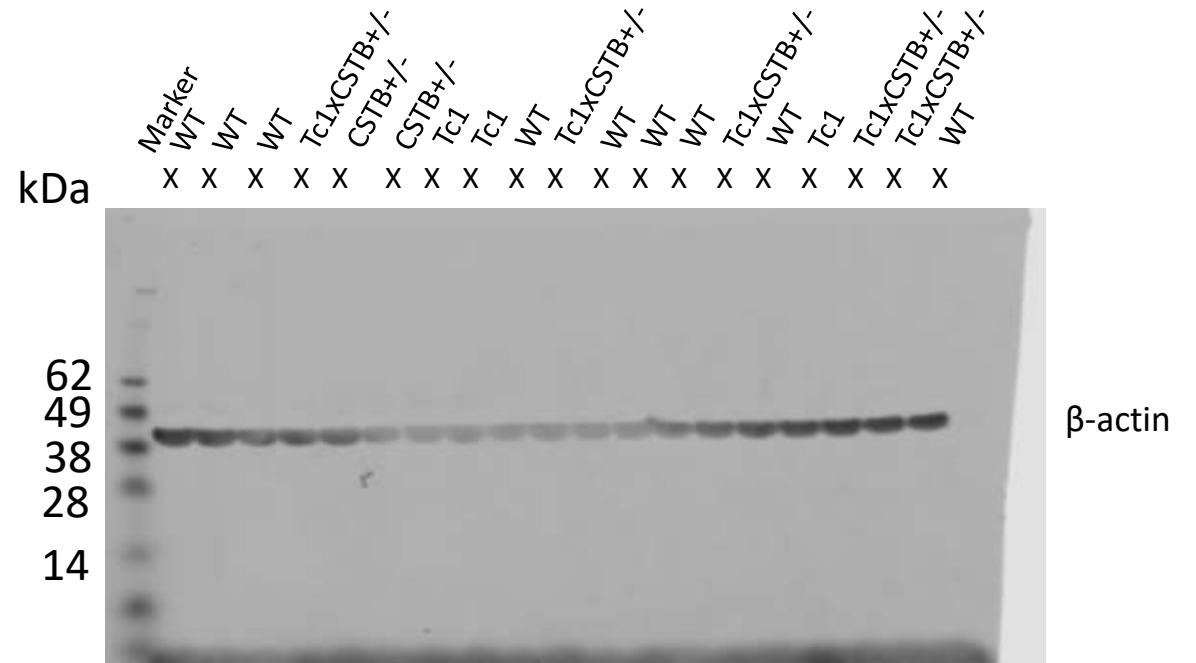
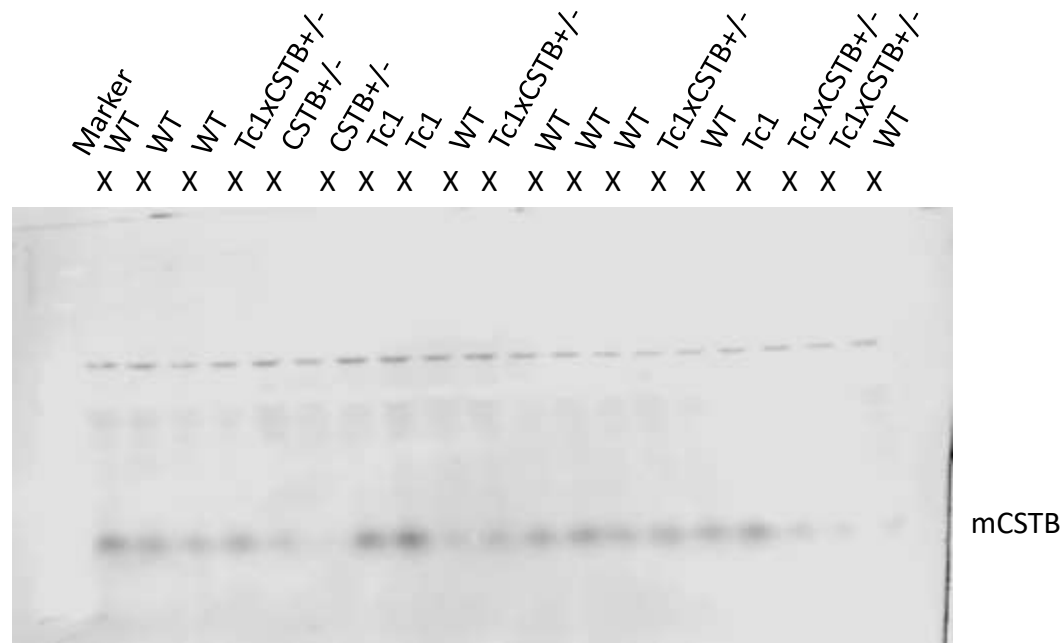
62
49
38
28
14



β-actin



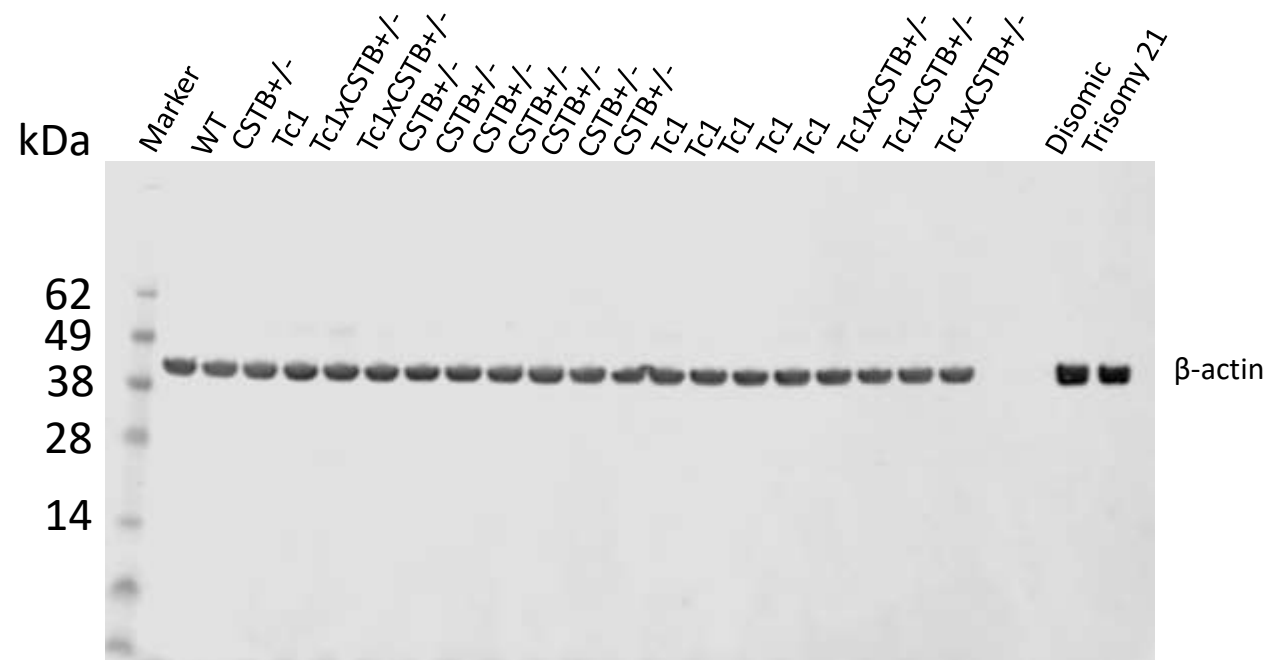
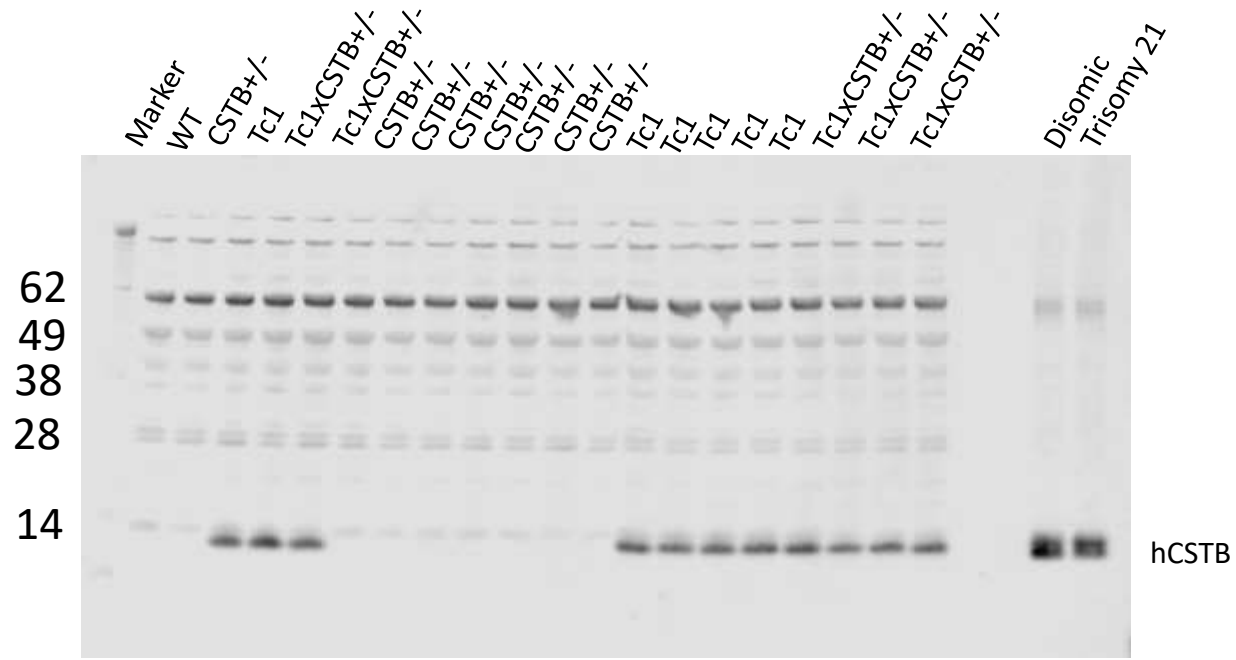




For Figure 3b

PVDF membranes

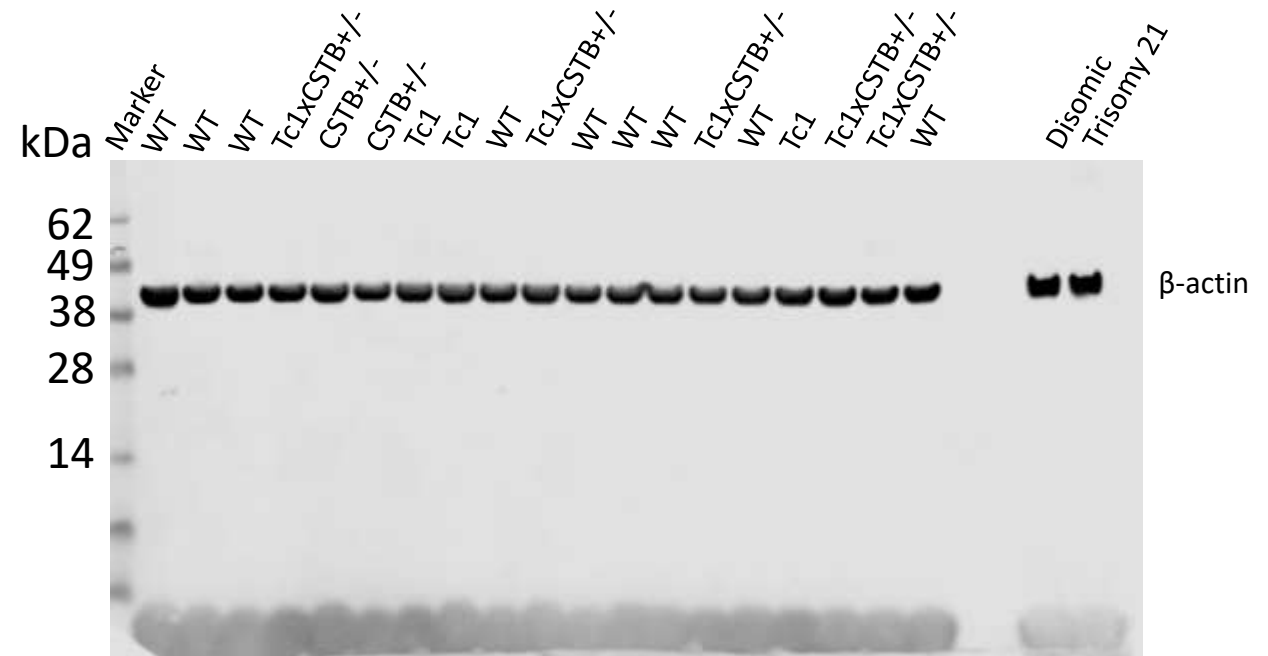
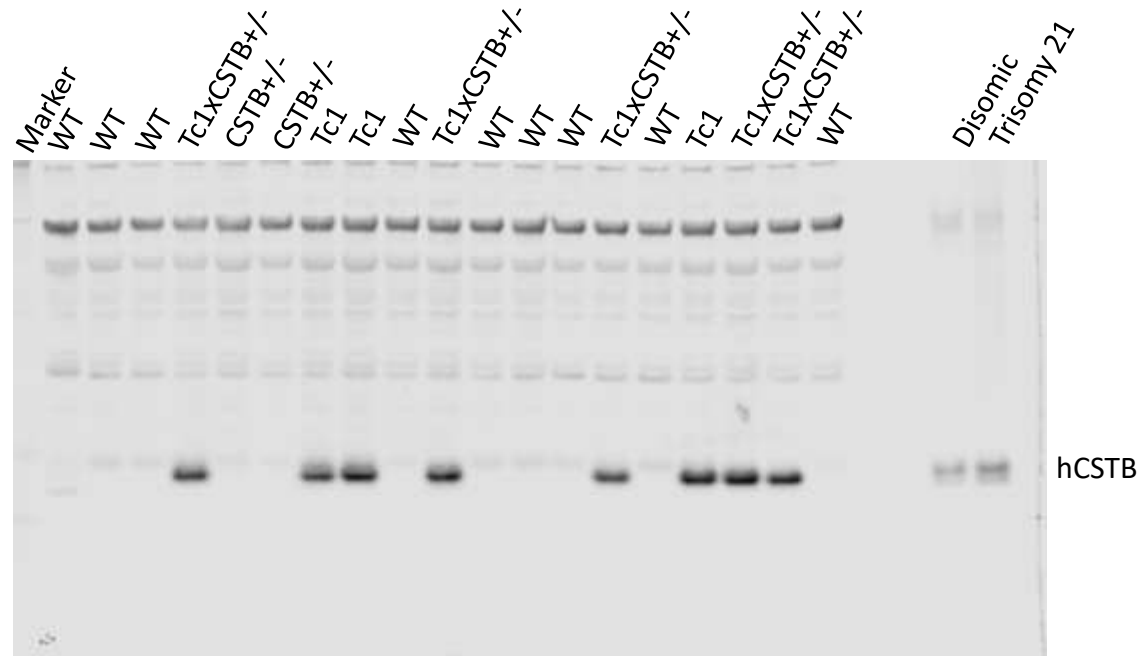
By Odyssey CLx imaging system (Yixing Wu)

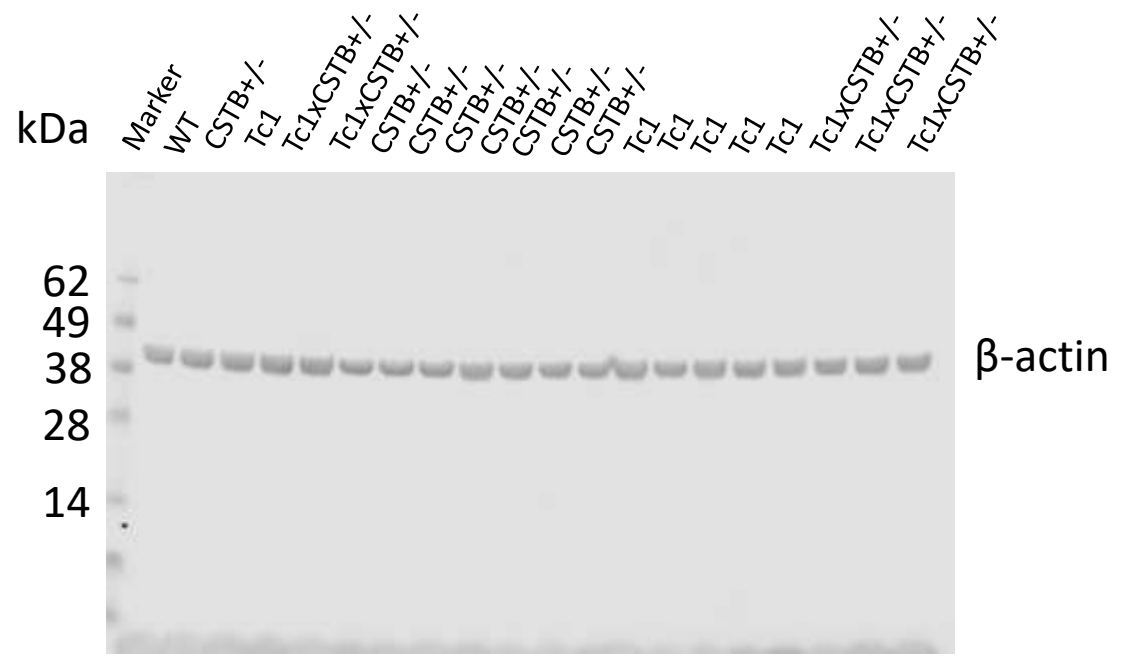
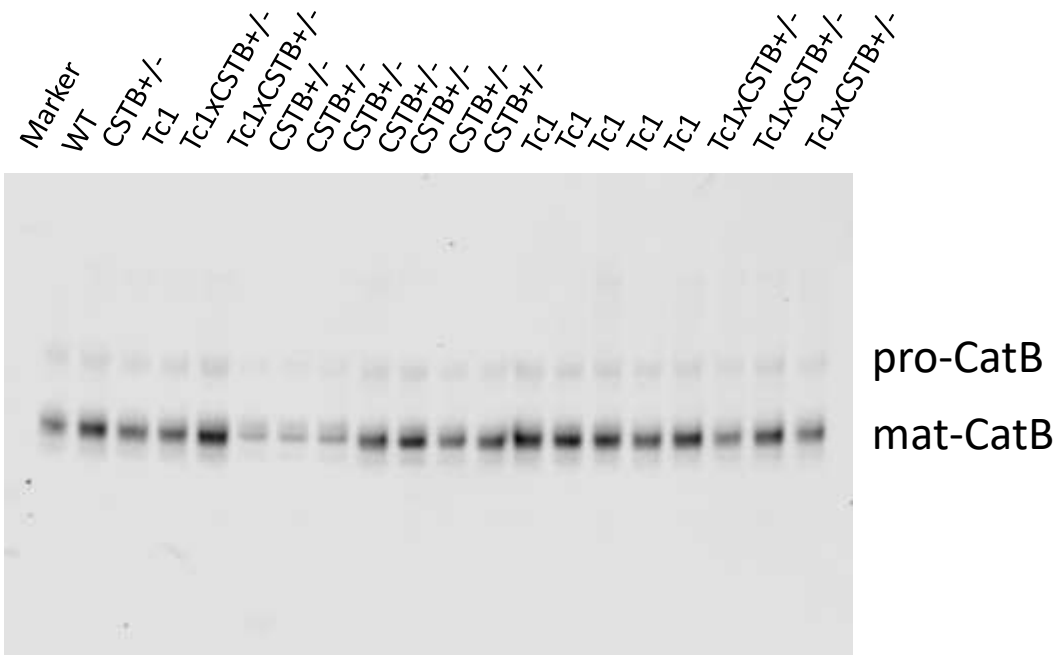


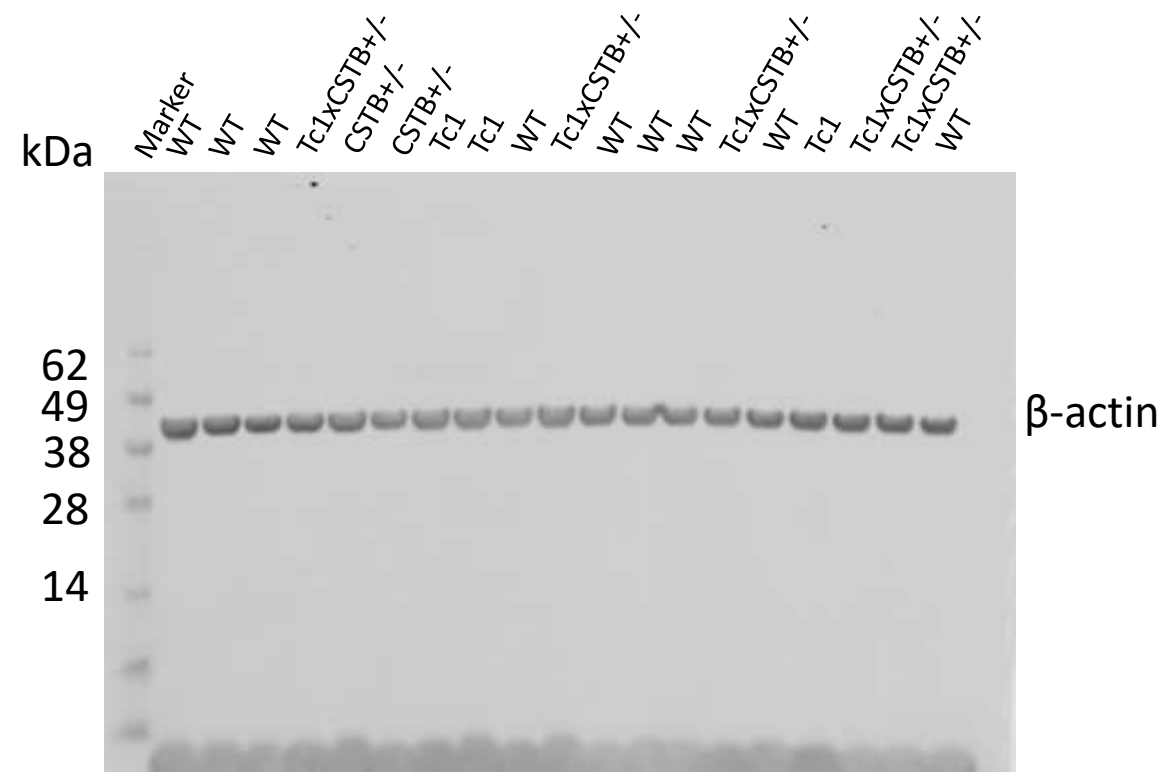
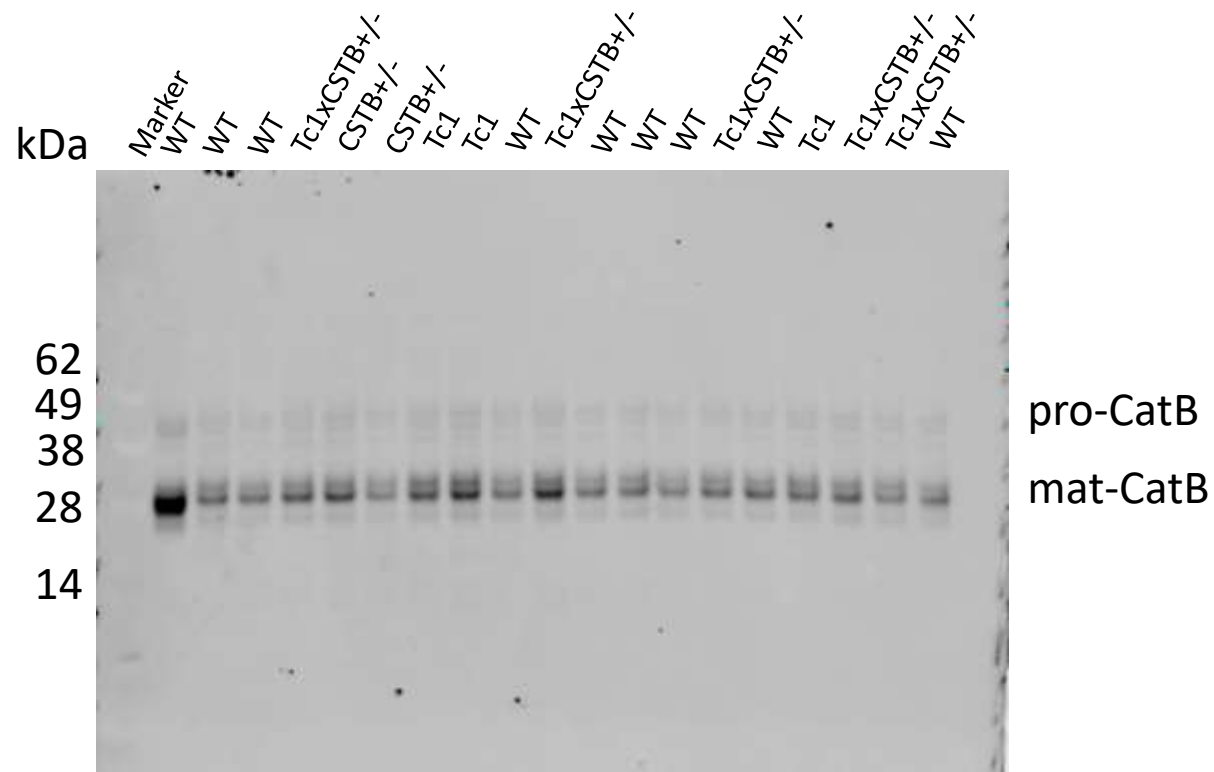
For Figure 3b

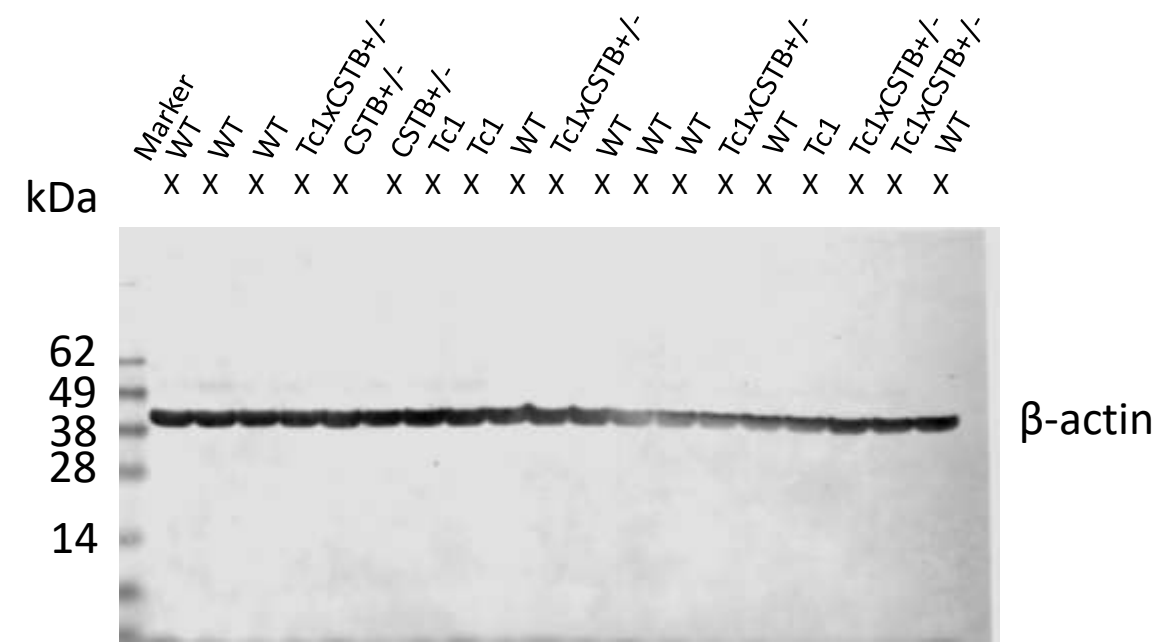
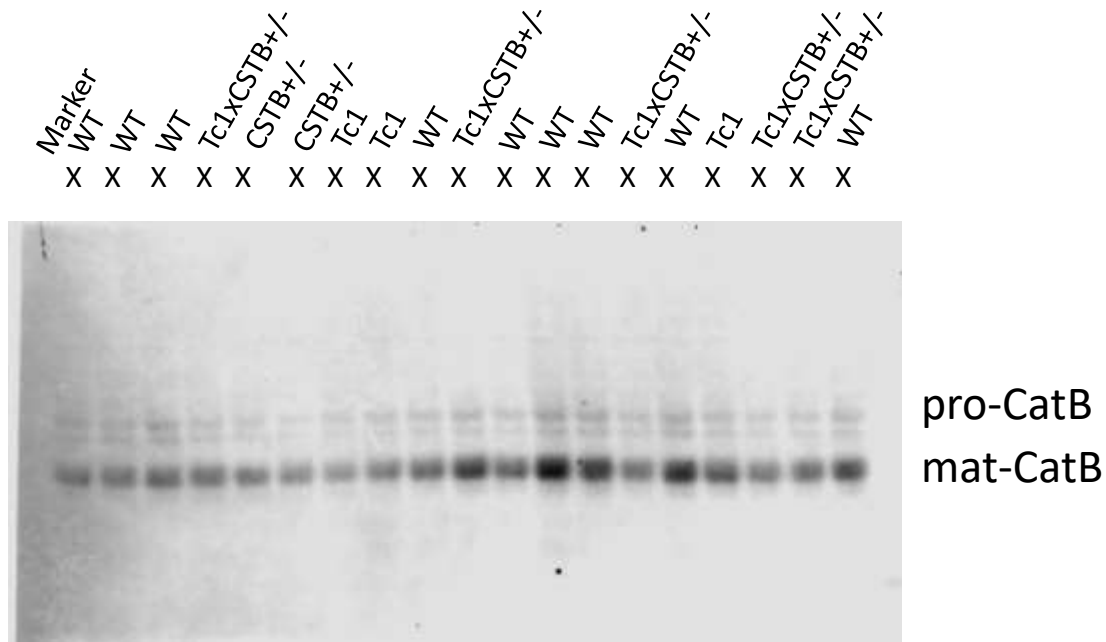
PVDF membranes

By Odyssey CLx imaging system (Yixing Wu)

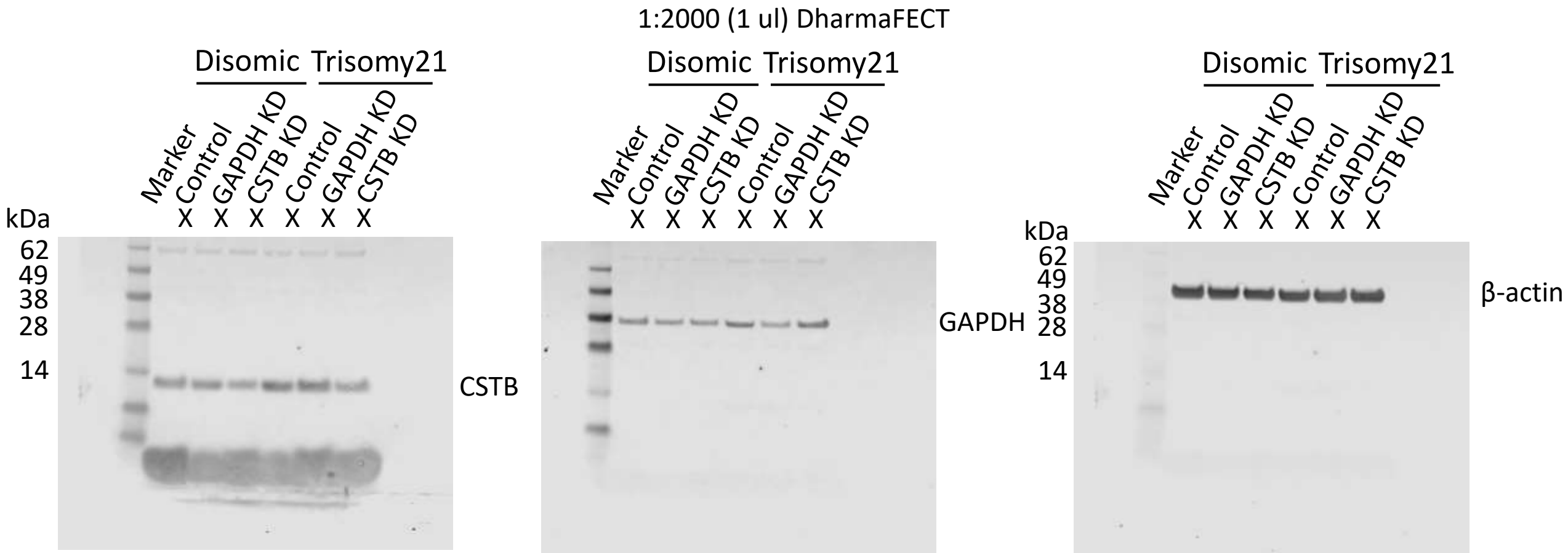




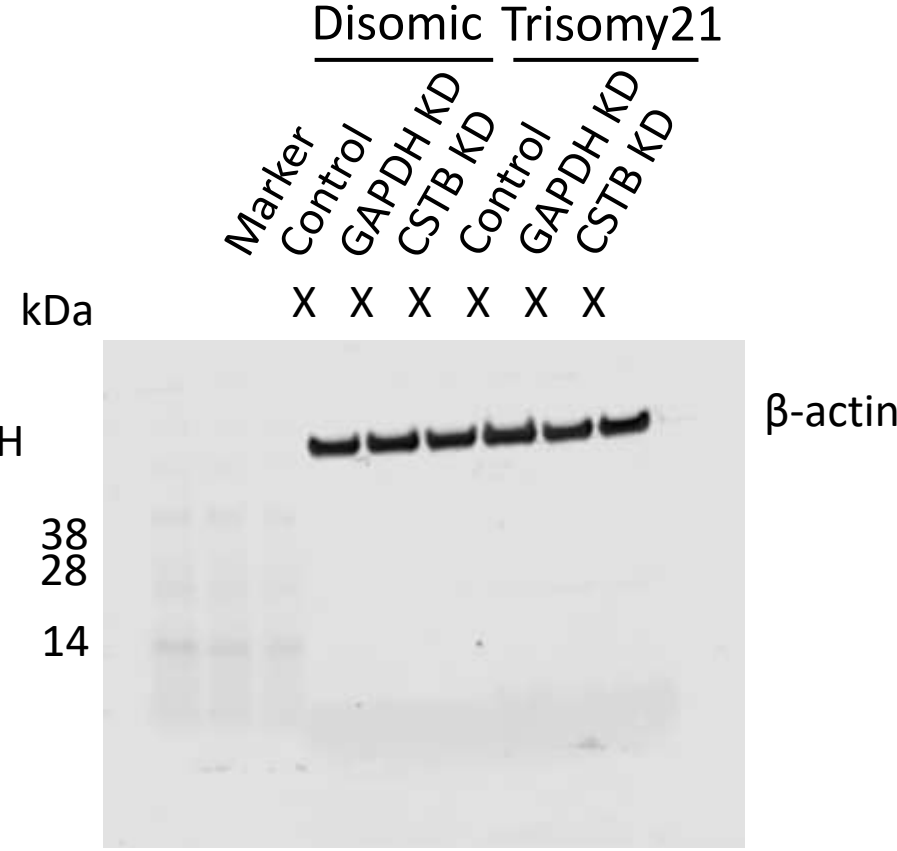
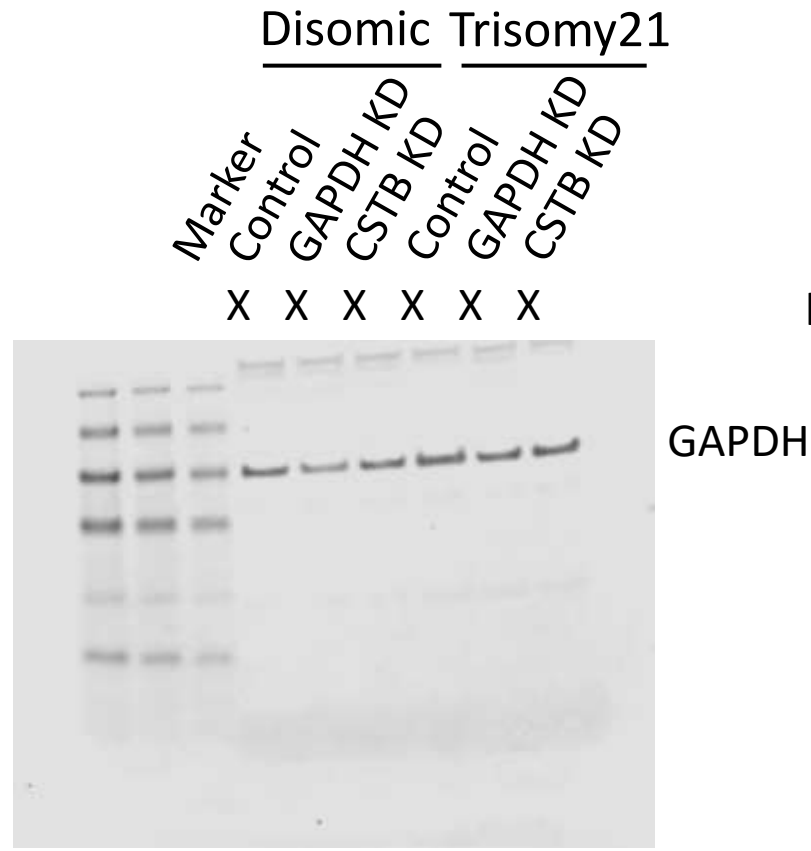
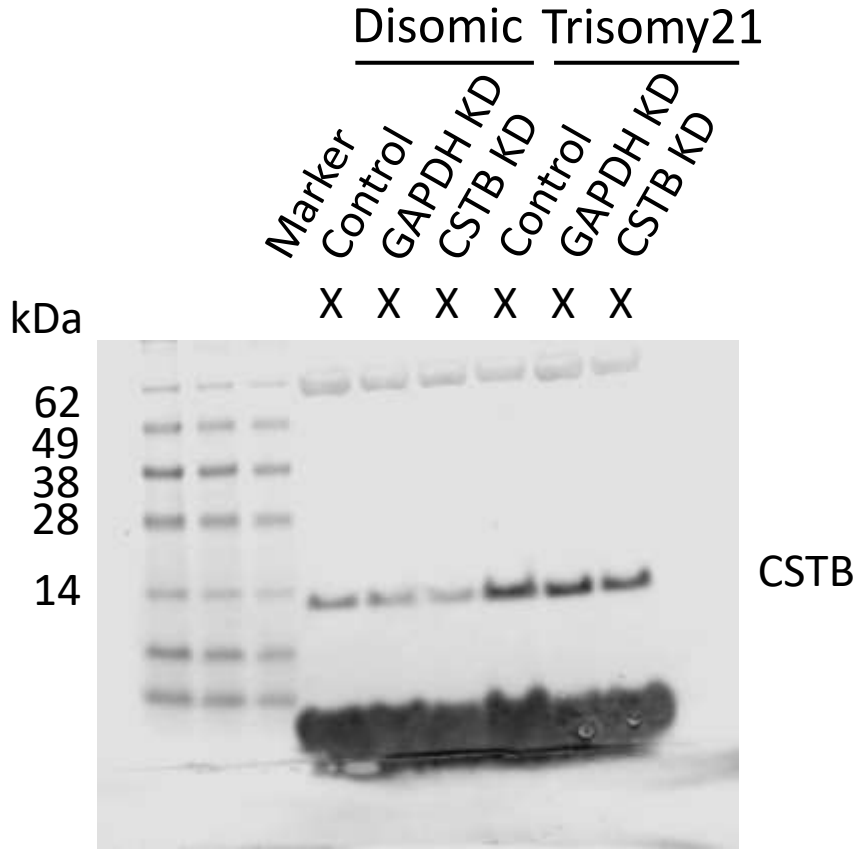




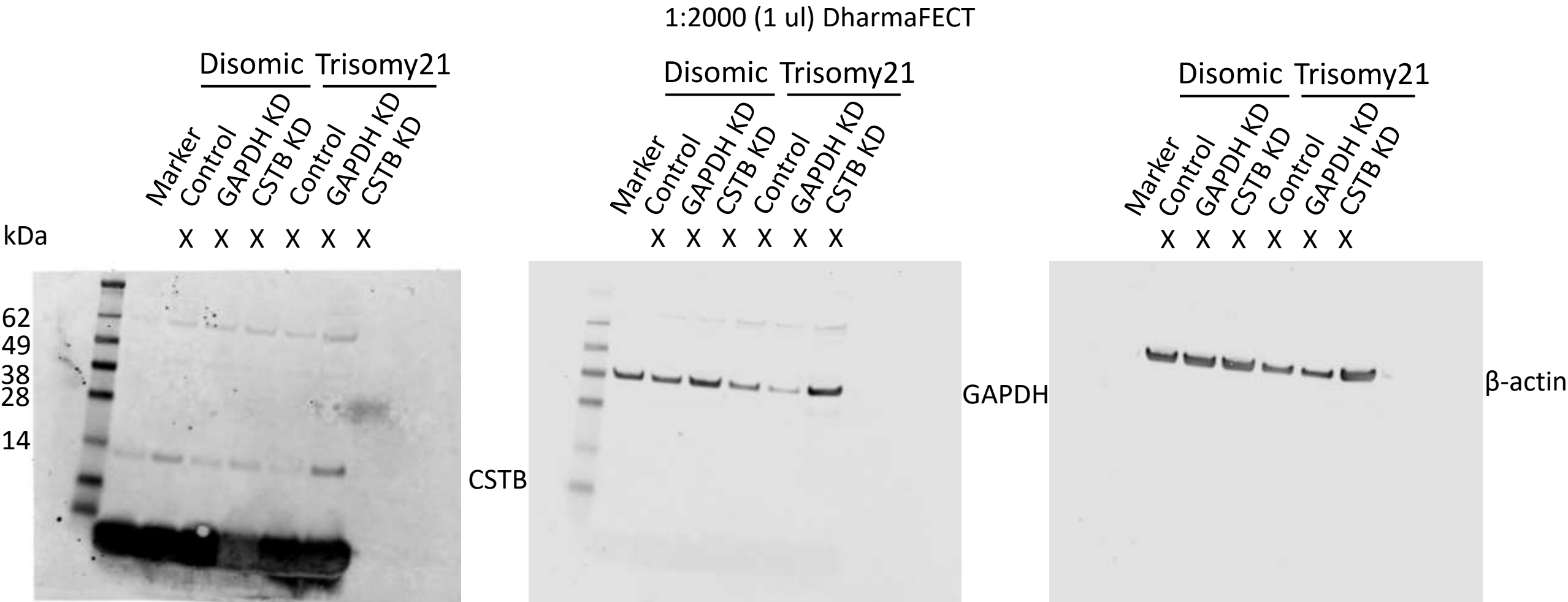
The same blot as the β-actin blot for mCSTB n2



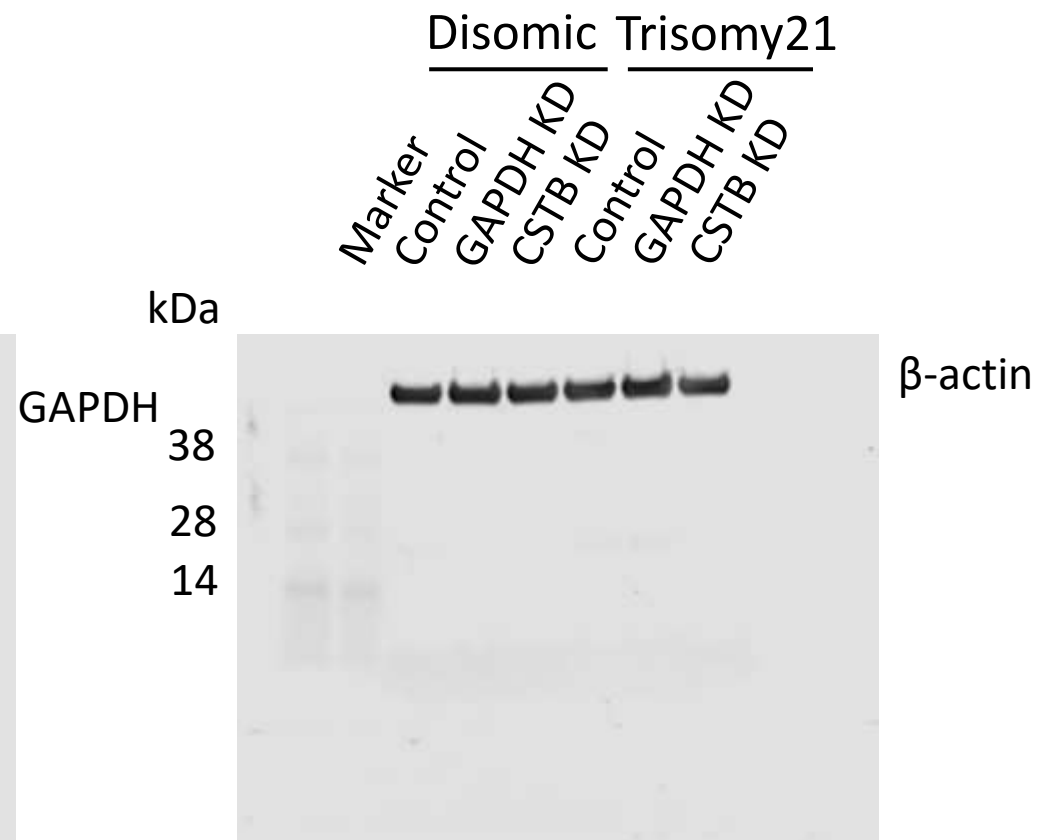
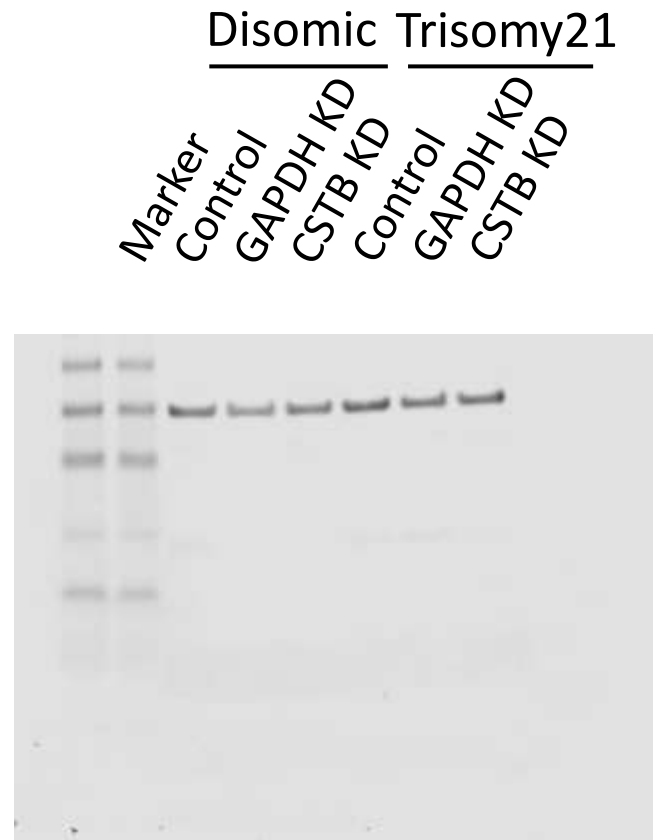
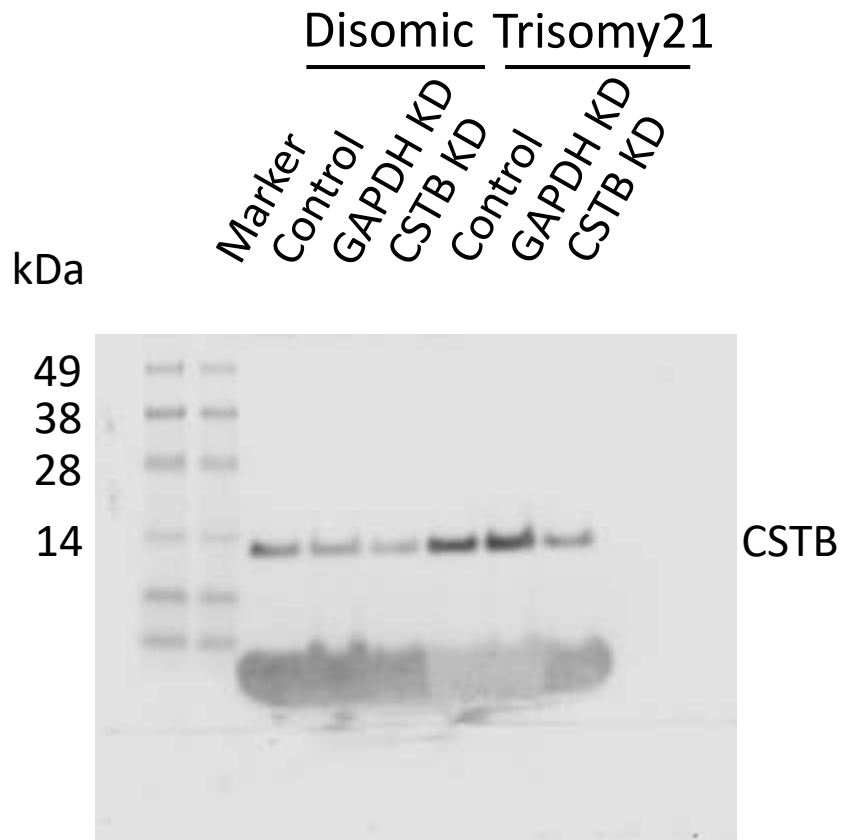
1:2000 (1 ul) DharmaFECT



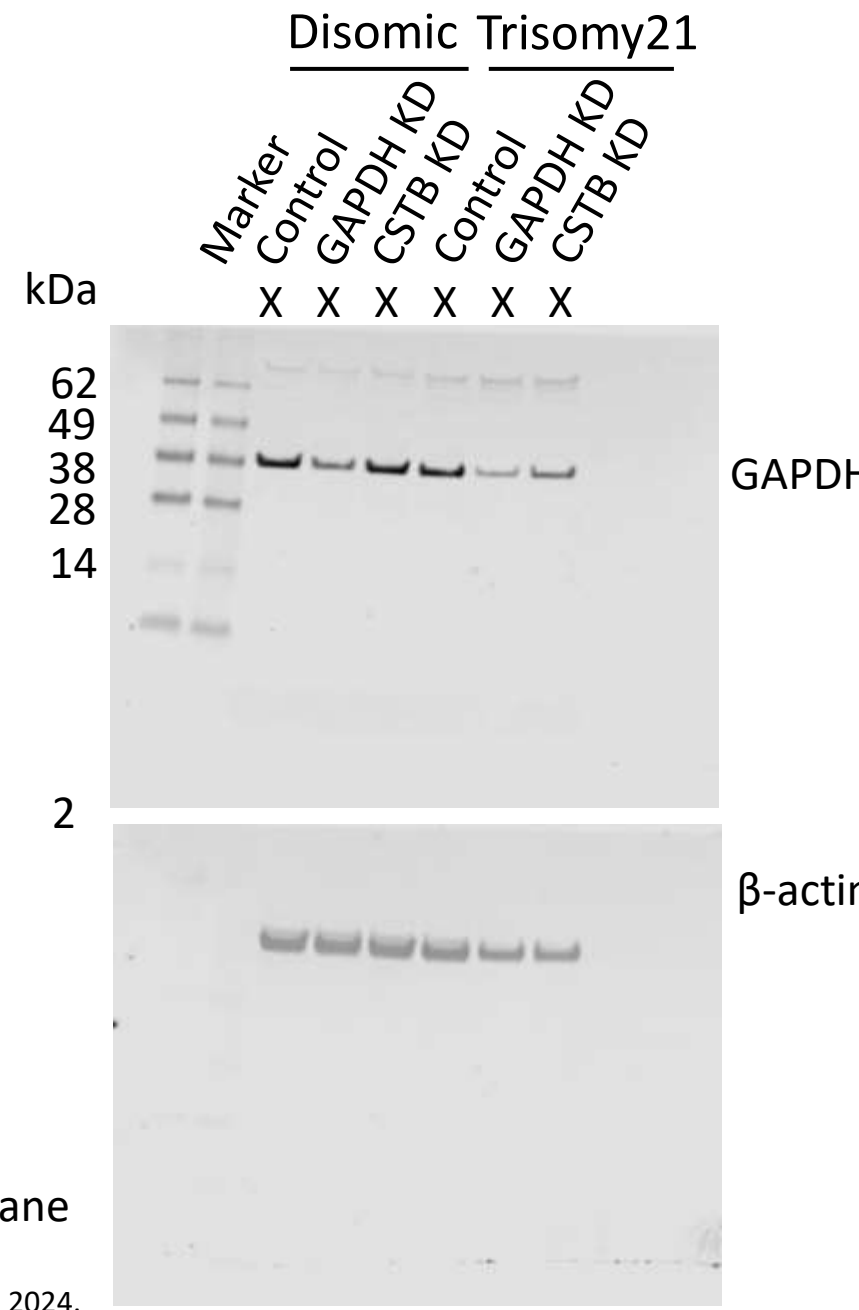
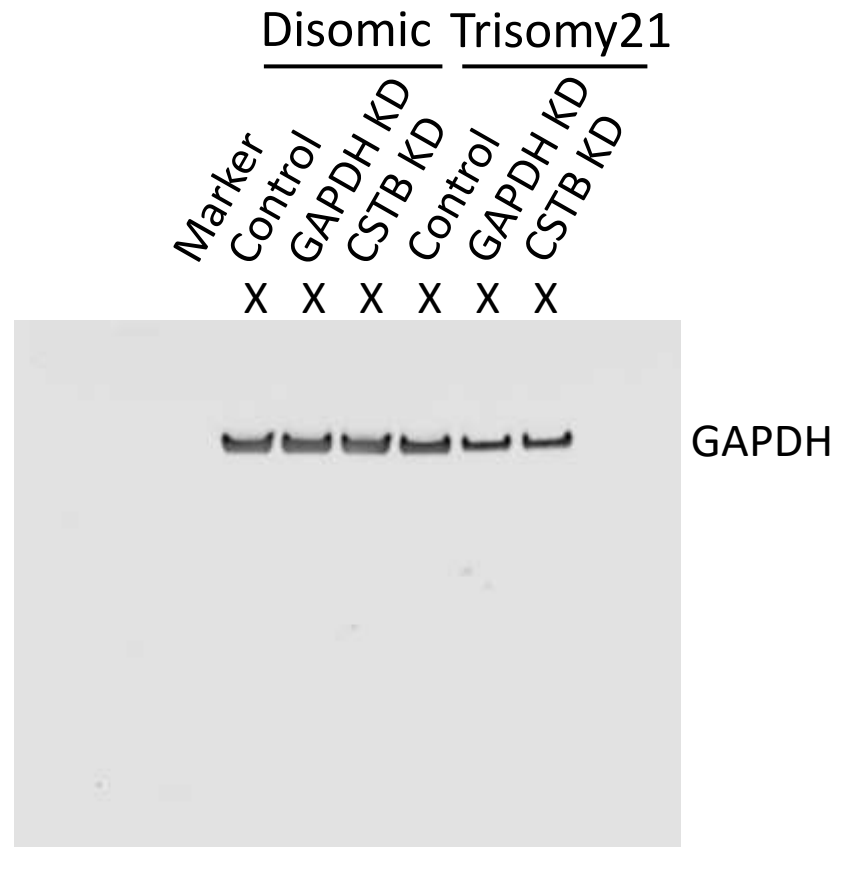
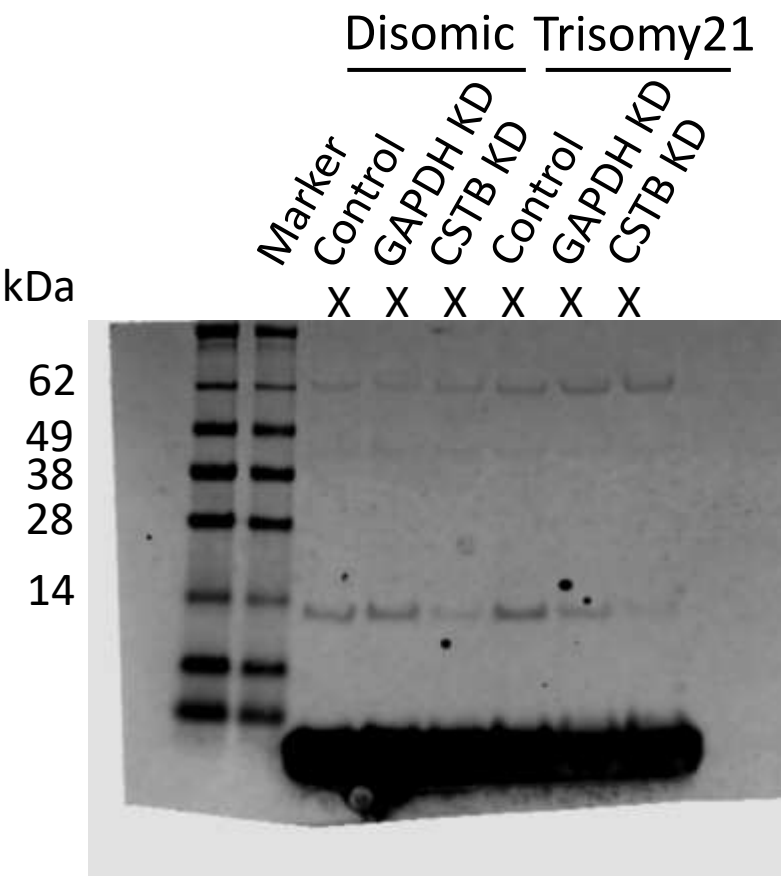
X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.



1:800 (2.5 ul) DharmaFECT



1:800 (2.5 ul) DharmaFECT



1

1 and 2 are both from the same membrane

X – indicates lanes from which data was quantitated but that were not included in the representative images in Wu et al 2024.

1:800 (2.5 ul) DharmaFECT

Disomic Trisomy21

Disomic Trisomy21

Disomic Trisomy21

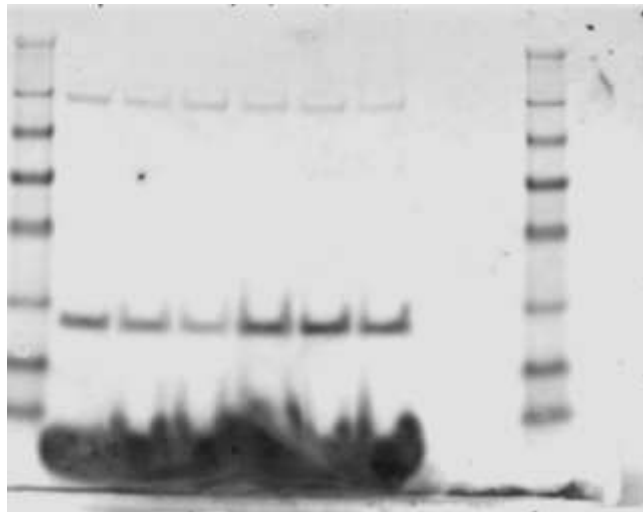
Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

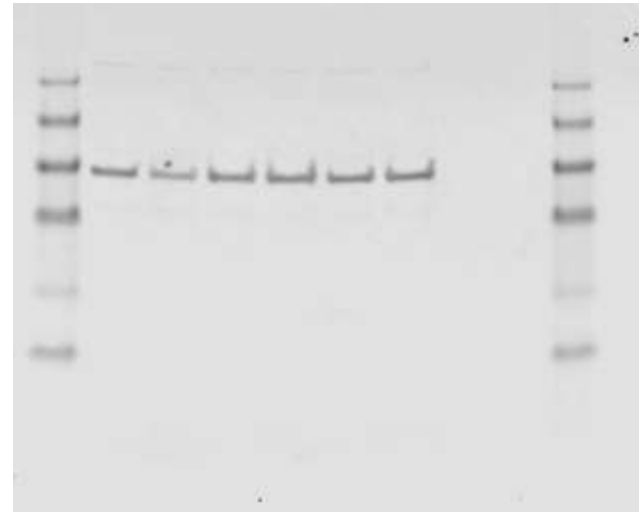
Marker
Control
GAPDH KD
CSTB KD
Control
GAPDH KD
CSTB KD

kDa

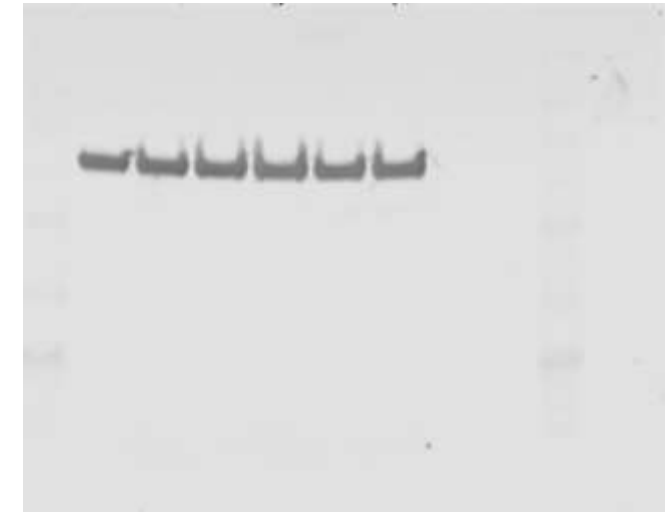
97
62
49
38
28
14



CSTB



GAPDH



β -actin

1:2000 (1 ul) or 1:800 (2.5 ul) DharmaFECT

