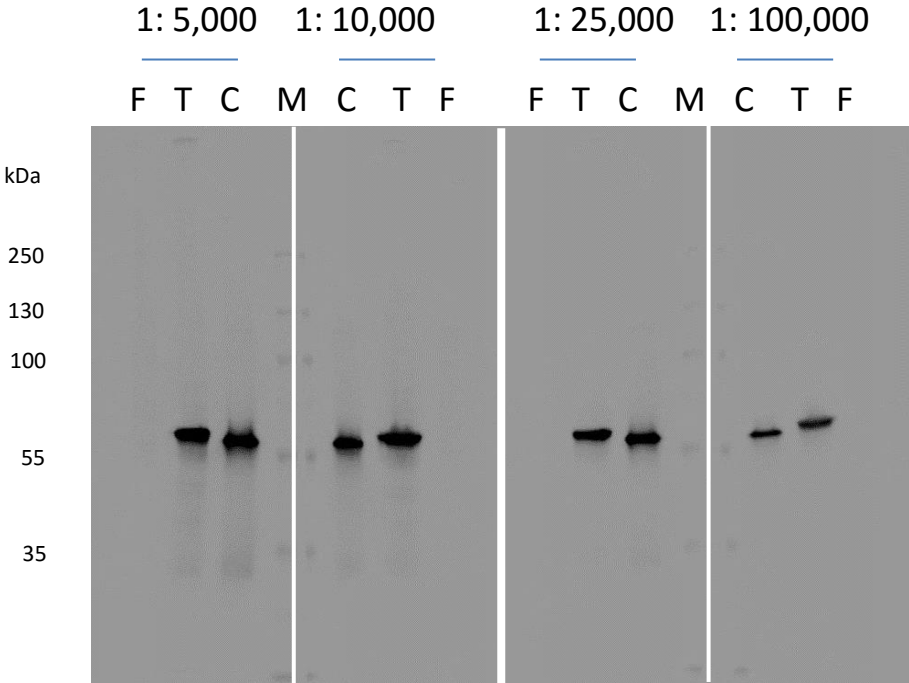
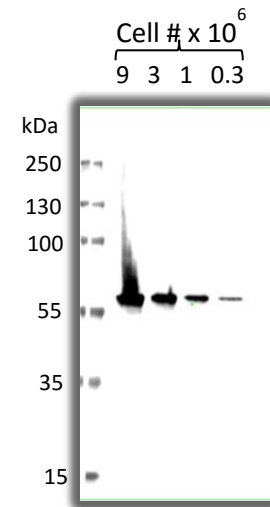
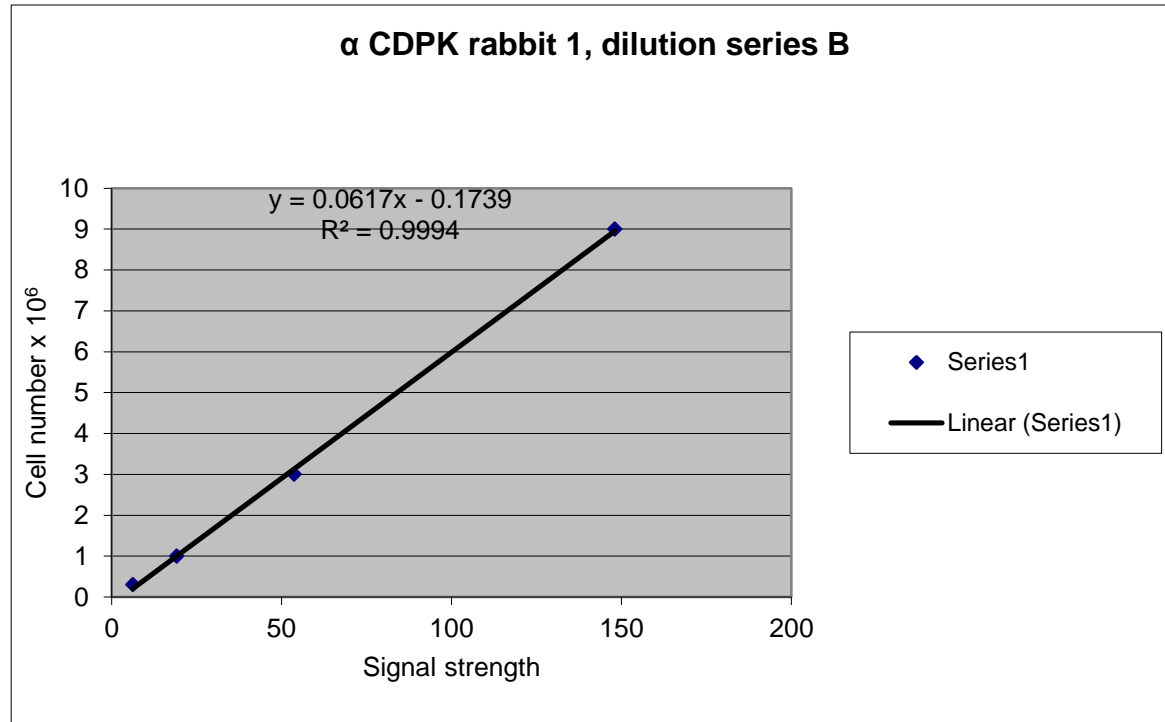


Supplementary Fig. S1

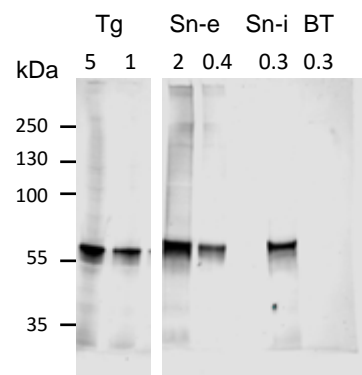
A



B



C



Supplementary Fig. S2

A

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gi | 12484153 | gb | AAG53993.1 | AF333958_1    ---MGQQESTLG-----GAAGEPRSRGHAAGTSGGPGDHLHATPGMFVQHSTAI    46
SN3_02800495    ---MGQQESTLASTSPTAAHQSSGPGGERLRSGGGTAGGGGADDKHLHATPGMFVQHSTAV    57
SRCN_3314_SN1    MSAAGDRASPY-VSAPLASQKSLRP-----STDVETHRETFCVSLSPSLCTYTHMYT    52
          *: . *          . .          : :* . : .

gi | 12484153 | gb | AAG53993.1 | AF333958_1    FSDRYKQQRVLGKGSFGEVILCKDKITGQECVAVKVISKRQVKQKTDKESLLREVQLLKQL    106
SN3_02800495    FSDRYKQQRVLGKGSFGEVILCKDKITGQECVAVKVISKRQVKQKTDKESLLREVQLLKQL    117
SRCN_3314_SN1    YVRGYKQQRVLGKGSFGEVILCKDKITGQECVAVKVISKRQVKQKTDKESLLREVQLLKQL    112
          :      *****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    DHPNIMKLYEFFEDKGYFYLVGVEVYTGGEFDEIISRKRFEVDAARIIRQVLSGITVMH    166
SN3_02800495    DHPNIMKLYEIFEDRGYYLVGVEVYCGGEFDEIISRKRFEVDAARIIRQVLSGITVMH    177
SRCN_3314_SN1    DHPNIMKLYEIFEDRGYYLVGVEVYCGGEFDEIISRKRFEVDAARIIRQVLSGITVMH    172
          *****:*:*:*:*:*:* *****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    KNKIVHRDLKPENLLESKSKDANIRIIDFGLSTHFEASKMKDKIGTAYYIAPEVLHGT    226
SN3_02800495    KNKVVHRDLKPENLLESKSKDANIRIIDFGLSTHFEASKMKDKIGTAYYIAPEVLHGT    237
SRCN_3314_SN1    KNKVVHRDLKPENLLESKSKDANIRIIDFGLSTHFEASKMKDKIGTAYYIAPEVLHGT    232
          ***:*****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    YDEKCDVWSTGVILYILLSGCPPFNAGANEYDILKKVEKGKGYTFELPQWKKVSESADLIR    286
SN3_02800495    YDEKCDVWSTGVILYILLSGCPPFNAGADEYEILKKVEKGKGYTFELPQWKKVSESADLIR    297
SRCN_3314_SN1    YDEKCDVWSTGVILYILLSGCPPFNAGADEYEILKKVEKGKGYTFELPQWKKVSESADLIR    292
          *****:*:*:*:*:*:* *****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    KMLTYVPSMRISARDALDHEWVQTYGKEQATVDVPSLDNALNLNIRQFGTQKLSQAALLY    346
SN3_02800495    KMLTYVPSMRISARDALDHEWVQTYGKEQATVDVPSLDNALNLNIRQFGTQKLSQAALLY    357
SRCN_3314_SN1    KMLTYVPSMRISARDALDHEWVQTYGKEQATVDVPSLDNALNLNIRQFGTQKLSQAALLY    352
          *****:*:*:*:*:*:* *****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    MGSKLTSQDETKELTAIFHRMDKNGDGLDRAELIEGYKELMRMKGQDASMLDASAVEHE    406
SN3_02800495    MGSKLTSKEETRELSAIFHRMDKNGDGLDRAELIEGYKELLRKLGQDASLLDQSAVEYE    417
SRCN_3314_SN1    MGSKLTSKEETRELSAIFHRMDKNGDGLDRAELIEGYKELLRKLGQDASLLDQSAVEYE    412
          *****:*:*:*:*:*:* *****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    VDQVLDVAVDFDKNGYIEYSEFVTVAMDRKTLRSRERLERAFRMDADNSGKISSAELATI    466
SN3_02800495    VDQVLEAVDFDKNGFYGYSEFVTVAMDRKSLRSRERLERAFKMFADADNSGKISSAELATI    477
SRCN_3314_SN1    VDQVLEAVDFDKNGFYGYSEFVTVAMDRKSLRSRERLERAFKMFADADNSGKISSAELATI    472
          *****:*:*:*:*:*:* *****

gi | 12484153 | gb | AAG53993.1 | AF333958_1    FGVSDVDSETWKSVLSEVDKNNNDGEVDFDEFQMLLKLKCGN-----    507
SN3_02800495    FGVSDIDSETWKAVLAEVDRNNDGEVDFGFEQMLLKLKCDENATKKR    524
SRCN_3314_SN1    FGVSDIDSETWKAVLAEVDRNNDGEVDFGFEQMLLKLKCDENATKKR    519
          *****:*:*:*:*:*:* *****

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B

SnCDPK1	MGQEQSTLASTSPTAAHQSSGPGGERLRSGGGTAGGGGADDKLHATPGMFMVQHSTAVFSD	60
TGME49_CDPK1	MGQEQSTLG-----GAAGEPRSRGHAAGTSGGPGDHLHATPGMFMVQHSTAI FSD ***:***. * .** * :. .** *:*****:***	49
SnCDPK1	RYKGQRVLGKGSFGEVILCKDKITGQECAVKVISKRQVKQKTDKESLLREVQLLKQLDHP	120
TGME49_CDPK1	RYKGQRVLGKGSFGEVILCKDKITGQECAVKVISKRQVKQKTDKESLLREVQLLKQLDHP *****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****	109
SnCDPK1	NIMKLYEIFEDRGYYLVEVYCGGELFDEIISRKRFEVDAARIIRQVLSGITYMHNK	180
TGME49_CDPK1	NIMKLYEFEDKGYFYLVEVYTGELFDEIISRKRFEVDAARIIRQVLSGITYMHNK *****:***:***:***** *****:*****:*****:*****:*****:*****:*****:*****	169
SnCDPK1	VVHRDLKPENLLESKSKDANIRIIDFGLSTHFEASKMKDKIGTAYYIAPEVLHGTYDE	240
TGME49_CDPK1	IVHRDLKPENLLESKSKDANIRIIDFGLSTHFEASKMKDKIGTAYYIAPEVLHGTYDE :*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****	229
SnCDPK1	KCDVWSTGVILYILLS-----	256
TGME49_CDPK1	KCDVWSTGVILYILLSGESVPRSAFPVSPRSSSFCSSSSFCSPGLPVYLQKREIKSCVA *****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****	289
SnCDPK1	-----GCPPFNGADEYEILKKVEKGKTYFELPQW	285
TGME49_CDPK1	FYVGMQRDACALTYLGTQDARAGAFFPDEKFRCPFFNGANEYDILKKVEKGKTYFELPQW *****:***:*****:*****:*****:*****:*****:*****:*****:*****:*****	349
SnCDPK1	KKVSESADLIRKMLTYVPSMRI SARDALDHEWVQTYGKEQATVDVPSLDNALNIRQFQ	345
TGME49_CDPK1	KKVSESADLIRKMLTYVPSMRI SARDALDHEWIQTYTKEQISVDVPSLDNALNIRQFQ *****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****	409
SnCDPK1	GTQKLSQAALLYMGSKLTSKEETRELSAIFHRMDKNGDGLDRAELIEGYKELRLKGGQD	405
TGME49_CDPK1	GTQKLAQAALLYMGSKLTSQDETRELTAIFHKMDKNGDGLDRAELIEGYKELMRMKGQD *****:*****:*****:***:***:*****:*****:*****:*****:*****:*****:*****	469
SnCDPK1	ASLLDQSAVEYEVDQVLEAVDFDKNGFIGYSEFVTVAMDRKSLLSRERLERAFKMFADAN	465
TGME49_CDPK1	ASMLDASAVEHEVDQVLDVDFDKNGYIEYSEFVTVAMDRKTLRSRERLERAFRFDSDN **:* *****:*****:*****:*****:*****:*****:*****:*****:*****:*****:***:**	529
SnCDPK1	SGKISSAELATIFGVSDIDSETWKAVALAEVDRNNDGEVDFGEFQEMLLKLCDENATKKR*	524
TGME49_CDPK1	SGKISSTELATIFGVSDVDSETWKSVLSEVDKNNNDGEVDFDEFQQLLKLKCGN*----- *****:*****:*****:***:***:***** *****:***** :	582

C

Sn3	MGQEQSTLASTSPTAAHQSSGPGGERLRSGGGTAGGGGADDKLHATPGMFVQHSTAVFSD	60
TgCDPK1	MGQQESTLG-----GAAGEPRSRGHAAAGTSGGPGDHLHATPGMFVQHSTAI FSD	49
	.:. * .** * .: .** * :*****:***	
Sn3	RYKQRVLGKGSFGEVILCKDKITGQECVAVKVISKRQVKQKTDKESLLREVQLLKQLDHP	120
TgCDPK1	RYKQRVLGKGSFGEVILCKDKITGQECVAVKVISKRQVKQKTDKESLLREVQLLKQLDHP	109
	*****:***:***:*****	
Sn3	NIMKLYEIFEDRGYYLVGEVYCGGELFDEIISRKR FSEVDAARIIRQVLSGIT YMHKNK	180
TgCDPK1	NIMKLYEFFEDKGYFYLVGEVYTGELFDEIISRKR FSEVDAARIIRQVLSGIT YMHKNK	169
	*****:***:***:*****	
Sn3	VVHRDLKPENLLLESKSKDANIRIIDFGLSTHFEASKMMKDKIGT NGPHFAAAVGVAAAA	240
TgCDPK1	IVHRDLKPENLLLESKSKDANIRIIDFGLSTHFEASKMMKDKIGT-----	214
	:*****	
Sn3	AAIRVAAAVGVVATAVGLAAA AVDVAATVDVASAALGVVLLVLETERPW AYYIAPEVLH	300
TgCDPK1	-----AYYIAPEVLH	224

Sn3	GTYDEKCDVWSTGVILYILLS-----	321
TgCDPK1	GTYDEKCDVWSTGVILYILLS GESVPRSAFPVSPRSSSSFCSSSSFCSPGLPVYLQKREI	284

Sn3	-----GCPPFNGADEYEILKKVEKGK YTF	345
TgCDPK1	KSCVAFYVGMQORDACALIYLGTDARAGAFFPDEKH RCPPFNGANEYDILKKVEKGK YTF	344
	*****:***:*****	
Sn3	ELPQWKKVSESAKDLIRKMLTYVPSMRISARDALDHEWVQTYGKEQATVDVPSLDNAILN	405
TgCDPK1	ELPQWKKVSESAKDLIRKMLTYVPSMRISARDALDHEW IQTYTKEQISVDVPSLDNAILN	404
	*****:***:***:*****	
Sn3	IRQFQGTQKLSQAALLYMGSKLTSKEETRELSAIFHRMDKNGDQQLDRAELIEGYKELLR	465
TgCDPK1	IRQFQGTQKLAQAALLYMGSKLTSQDET KELTAIFHKMDKNGDQQLDRAELIEGYKELMR	464
	*****:*****:***:***:*****:*****:***:***:*****:***	
Sn3	LKGQDASLLDQSAVEYEVDQVLEAVDFDKNGFIGYSEFVTVAMDRKSLLSRERLERAFKM	525
TgCDPK1	MKGQDASMLDASAVEHEVDQVLDVAVDFDKNGYIEYSEFVTVAMDRKTL LSRERLERAFRM	524
	:*****:***:***:*****:*****:***:*****:*****:***:*****:***	
Sn3	FDADNSGKISSAELATIFGVSDIDSETWKAVLAEVDRNNDGEVDFGEFQEMLLKLC DENA	585
TgCDPK1	FDSDNSGKISSTELATIFGVSDVDSETWKS VLSEVDKNNDGEVDFDEFQ QMLLKL CGN--	582
	.:***:*****:*****:***:***:*****:***:*****:	
Sn3	TKKR	589
TgCDPK1	----	582