Table S1. The protein sequences used in this study.

Proteins	Sequences and Vectors
3CL^{pro}	SGFRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDDVVYCPRHVICTSEDMLNPNYEDLLIRKSN HNFLVQAGNVQLRVIGHSMQNCVLKLKVDTANPKTPKYKFVRIQPGQTFSVLACYNGSPSGVYQ CAMRPNFTIKGSFLNGSCGSVGFNIDYDCVSFCYMHHMELPTGVHAGTDLEGNFYGPFVDRQTA QAAGTDTTITVNVLAWLYAAVINGDRWFLNRFTTTLNDFNLVAMKYNYEPLTQDHVDILGPLSA QTGIAVLDMCASLKELLQNGMNGRTILGSALLEDEFTPFDVVRQCSGVTFQ、pcDNA3.1（+）
3CL^{pro} H41A/C145A	SGFRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDDVVYCPRAVICTSEDMLNPNYEDLLIRKSN HNFLVQAGNVQLRVIGHSMQNCVLKLKVDTANPKTPKYKFVRIQPGQTFSVLACYNGSPSGVYQ CAMRPNFTIKGSFLNGSAGSVGFNIDYDCVSFCYMHHMELPTGVHAGTDLEGNFYGPFVDRQTA QAAGTDTTITVNVLAWLYAAVINGDRWFLNRFTTTLNDFNLVAMKYNYEPLTQDHVDILGPLSA QTGIAVLDMCASLKELLQNGMNGRTILGSALLEDEFTPFDVVRQCSGVTFQ、pcDNA3.1（+）
GLuc	MGVKVLFALICIAVAEAKPTENNEDFNIVAVASNFATTDLDADRGKLPGKKLPLEVLKEMEANAR KAGCTRGCLICLSHIKCTPKMKKFIPGRCHTYEGDKESAQGGIGEAIVDIPEIPGFKDLEPMEQFIA QVDLCVDCTTGCLKGLANVQCSDLLKKWLPQRCATFASKIQGQVDKIKGAGGD、pCMV
WT-IN-Gluc	MGVKVLFALICIAVAEAKPTENNEDFNIVAVASNFATTDLDADRGSAVLQSGFKLPGKKLPLEVLK EMEANARKAGCTRGCLICLSHIKCTPKMKKFIPGRCHTYEGDKESAQGGIGEAIVDIPEIPGFKDL EPMEQFIAQVDLCVDCTTGCLKGLANVQCSDLLKKWLPQRCATFASKIQGQVDKIKGAGGD、 pCMV
P1-IN-Gluc	MGVKVLFALICIAVAEAKPTENNEDFNIVAVASNFATTDLDADRGPVILQYTTKLPGKKLPLEVLK EMEANARKAGCTRGCLICLSHIKCTPKMKKFIPGRCHTYEGDKESAQGGIGEAIVDIPEIPGFKDL EPMEQFIAQVDLCVDCTTGCLKGLANVQCSDLLKKWLPQRCATFASKIQGQVDKIKGAGGD、 pCMV
TM-(GS)n-P1-Gluc	VPVLVMSLLFIASVFMLHIWGSGSGSPVILQYTTGSGSGSMGVKVLFALICIAVAEAKPTENNEDF NIVAVASNFATTDLDADRGKLPGKKLPLEVLKEMEANARKAGCTRGCLICLSHIKCTPKMKKFIP GRCHTYEGDKESAQGGIGEAIVDIPEIPGFKDLEPMEQFIAQVDLCVDCTTGCLKGLANVQCSDL LKKWLPQRCATFASKIQGQVDKIKGAGGD、pCMV
TM-(EAAK)n-P1-Gluc	VPVLVMSLLFIASVFMLHIWEAAAKEAAAKPVILQYTTGSGSGSMGVKVLFALICIAVAEAKPTE NNEDFNIVAVASNFATTDLDADRGKLPGKKLPLEVLKEMEANARKAGCTRGCLICLSHIKCTPKM KKFIPGRCHTYEGDKESAQGGIGEAIVDIPEIPGFKDLEPMEQFIAQVDLCVDCTTGCLKGLANVQ CSDLLKKWLPQRCATFASKIQGQVDKIKGAGGD、pCMV
eGFP	MVSKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLKFICTTGKLPVPWPTLVTTL TYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFEGDTLVNRIELKGI DFKEDGNILGHKLEYNYNSHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP VLLPDNHYLSTQSALSKDPNEKRDHMVLLEFVTAAGITLGMDELYK、pcDNA3.1（+）
WT-IN-FlipGFP	ATMDLPDDHYLSTQTILSKDLNSGLRSGSGLEMEVSALEKEVSALEKEVSALEKEVSALEKEVSA LEKEKRDHMVLLEYVTAAGITDASAVLQSGFKVSALKEKVSALKEKVSALKEKVSALKEKVSAL KEDIEGRGSLLTCGDVEENPGPKLATMRKGEELFTGIVPILVELDGDVNGHKFFVRGEGEGDATIG KLSLKFICTTGKLPVPWPTLVTTLTYGVQCFSRYPDHMKRHDFFKSAMPEGYVQERTIYFKDDGT YKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNFNSHKVYITADKQNNGIKANFTIRHN VEDGSVQLADHYQQNTPIGDGPVLLPGGRSR、pcDNA3.1（+）
P1-IN-FlipGFP	ATMDLPDDHYLSTQTILSKDLNSGLRSGSGLEMEVSALEKEVSALEKEVSALEKEVSALEKEVSA LEKEKRDHMVLLEYVTAAGITDASPVILQYTTKVSALKEKVSALKEKVSALKEKVSALKEKVSA LKEDIEGRGSLLTCGDVEENPGPKLATMRKGEELFTGIVPILVELDGDVNGHKFFVRGEGEGDATI GKLSLKFICTTGKLPVPWPTLVTTLTYGVQCFSRYPDHMKRHDFFKSAMPEGYVQERTIYFKDDG TYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNFNSHKVYITADKQNNGIKANFTIRH NVEDGSVQLADHYQQNTPIGDGPVLLPGGRSR、pcDNA3.1（+）