

Supplementary Figure 1. Usp19 is a DUB. Kinetics of cleavage of Ub-AMC by GSTUsp19 Δ TM and the GST-Usp19mut Δ TM assayed in the absence or presence of 10 mM NEM.

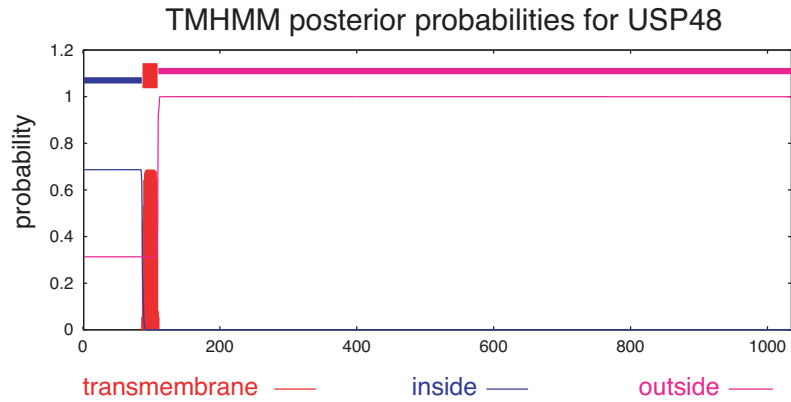
Supplementary Figure 2. TM domain predictions. Raw data of search results for TM domains using the TM-HMM 2.0 algorithm.

Supplementary Figure 3. Usp19 preferentially stabilizes the core glycosylated Bform

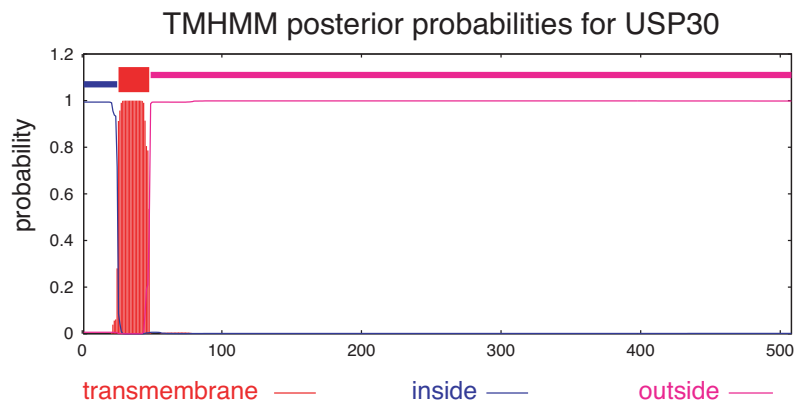
of GFP-CFTR Δ F508. Western blot analysis of HEK293T cells cotransfected with Myc-Usp19 and GFP-CFTR Δ F508 as indicated. GFP-CFTRwt was used as a control to identify the core glycosylated immature B-form and the mature C-form of CFTR. GFP was used as transfection control.

Supplementary Figure 1

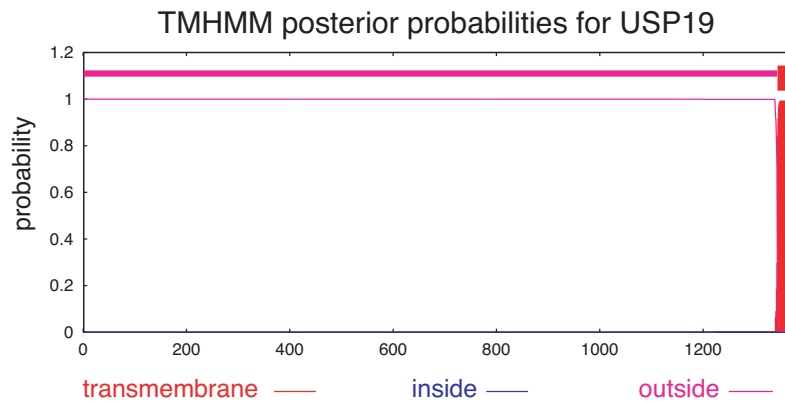
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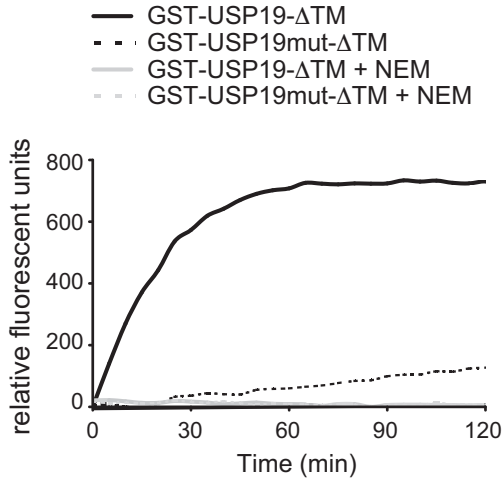
B



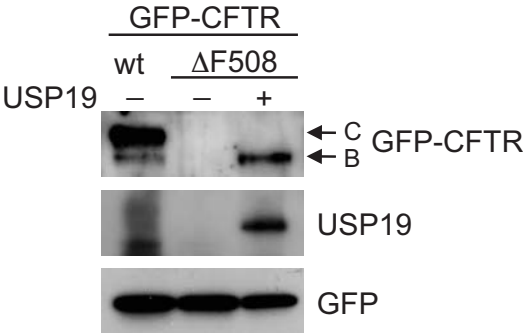
C



Supplementary
Figure 2



Supplementary
Figure 3



S1 Table. List of primers used for cloning of the plasmids described

source plasmids	primers	target vectors	Cloned plasmid
KIAA0891	5'-GGTGGAAATTCATGTCTGGCGGGGCCAGTGC-3' 5'-GCCCTAGACTTCTCCAGCGACTCTGGGATAC-3'	pcDNA4/myc-his-B	pcDNA4 USP19 myc-his
pcDNA4 USP19 myc-his	5'-GCTGTTTCATGAACTAGTGTGCCTAAA-3' 5'-TTTAGGCAACACTAGTTTCATGAACAGC-3'	pcDNA4/myc-his-A	pcDNA4 USP19C506S myc-his
pcDNA4 USP19 myc-his pcDNA4 USP19C506S myc-his	5'-GGTGGAAATTCATGTCTGGCGGGGCCAGTGC-3' 5'- CCCTAGACTGAGGCAGCCCTCATCTGGTG-3'	pGEX-5X-1	pGEX-5X-1 USP19wt TM pGEX-5X-1 USP19C506S TM
pcDNA4 USP19 myc-his pcDNA4 USP19C506S myc-his	5'-GGTGGAAATTCATGTCTGGCGGGGCCAGTGC-3' 5'-TACCGTCGACTTCTCCAGCGACTCTGGGATAC-3'	pEGFP-N2	pEGFP-N2 USP19wt pEGFP-N2 USP19C506S
pcDNA4 USP19 myc-his	5'-GGTGGAAATTCATGTCTGGCGGGGCCAGTGC-3' 5'-CCCTAGACTGAGGCAGCCCTCATCTGGTG-3'	pcDNA4/myc-his-B	pcDNA4 USP19 myc-hist TM
pYC6-LacZ	5'-GTTCCATGGCAGTCGACTACCCATACGATGTTCCAGATTA-3' 5'-GTTCTGCAGTGACGTAATCATCCCACCTCTGAGACGGAGTACCA-3'	pACYCDuet1	pACYC-LacZ
pCDNA3-HAub	5'-GTTCCATGGCAGTCGACTACCCATACGATGTTCCAGATTA-3' 5'-GTTCTGCAGTGACGTAATCATCCCACCTCTGAGACGGAGTACCA-3'	pACYC-LacZ	pACYC-Ub-LacZ
pET3a-Nedd8	5'-GAACCATGGTAATGCTAATTAAGTGAAGACGCTGAC-3' 5'-GAAGTCGACTGACGTTCTCCTCTCAGAGCCAACACCAGGT-3'	pACYC-LacZ	pACYC-Nedd8-LacZ
pCRUZ-HA-Sumo1 and,	5'-GTTCCATGGCAGTCGACTACCCTTACGACGTTCTGATTA-3' 5'-AACTGCAGTGACGTAATCATACCTCCCCTTTGTTCTGATAAACTTCA-3'	pACYC-LacZ	pACYC-Sumo1-LacZ
pCRUZ-HA-Sumo3	5'-GAACCATGGCCGACGAAAAGCCCAAGGAAG-3' 5'-GAAGTCGACTGACGTACCTCCCCTGCTGTTGGAACACA-3'	pACYC-LacZ	pACYC-Sumo3-LacZ
p6His-ISG15	5'-GAACCATGGGCTGGGACCTGACGGTGAAGA-3' 5'-GAAAAGCTTTGACGTAATCATGCCTCCCCGAGGCGCAGATTCA-3'	pACYC-LacZ	pACYC-ISG15-LacZ
HA-FAT10-GG-GFP	5'-GTTCCATGGCAGAATTCTACCCCTACGACGTGCCCGACTA-3' 5'-GAAGTCGACTGACGTCCCTCC AATACAATAAGATGCCAGGAAGA-3'	pACYC-LacZ	pACYC-FAT10-LacZ

S2 Table. List of primers used for real-time PCR and RT PCR

name	primers
GAPDH control	5' AAGGTCGGAGTCAACGGATT 3' 5' CTCCTGGAAGATGGTGATGG 3'
β -actin control	5'-CCTGGCACCCAGCACAAAT-3' 5'-GGGCCGGACTCGTCATACT-3'
USP19 (all isoforms)	5'-CGGCACAAGATGAGGAATGA-3' 5'-GGCACCGGCAGATAAAGAAA-3'
USP19 (TM domain)	5''-GTTGTGACGCGTTATGCCTAT 3' 5'-TCCAGCTCCTGCCAAATC-3'
XBP1	5'-GGGGCTTGGTATATATGTGG-3' 5'-CCTTGTAGTTGAGAACCAGG-3'