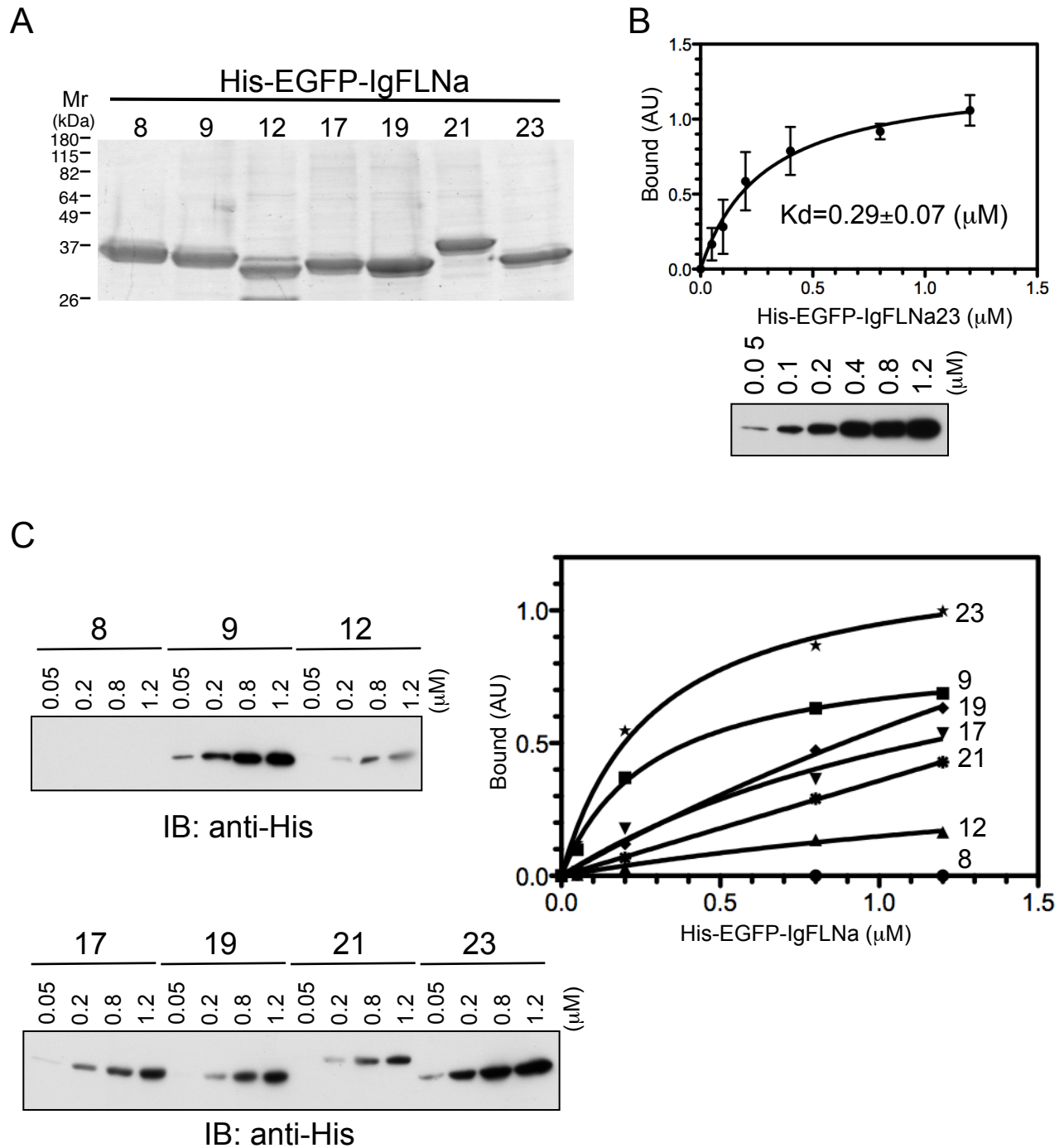


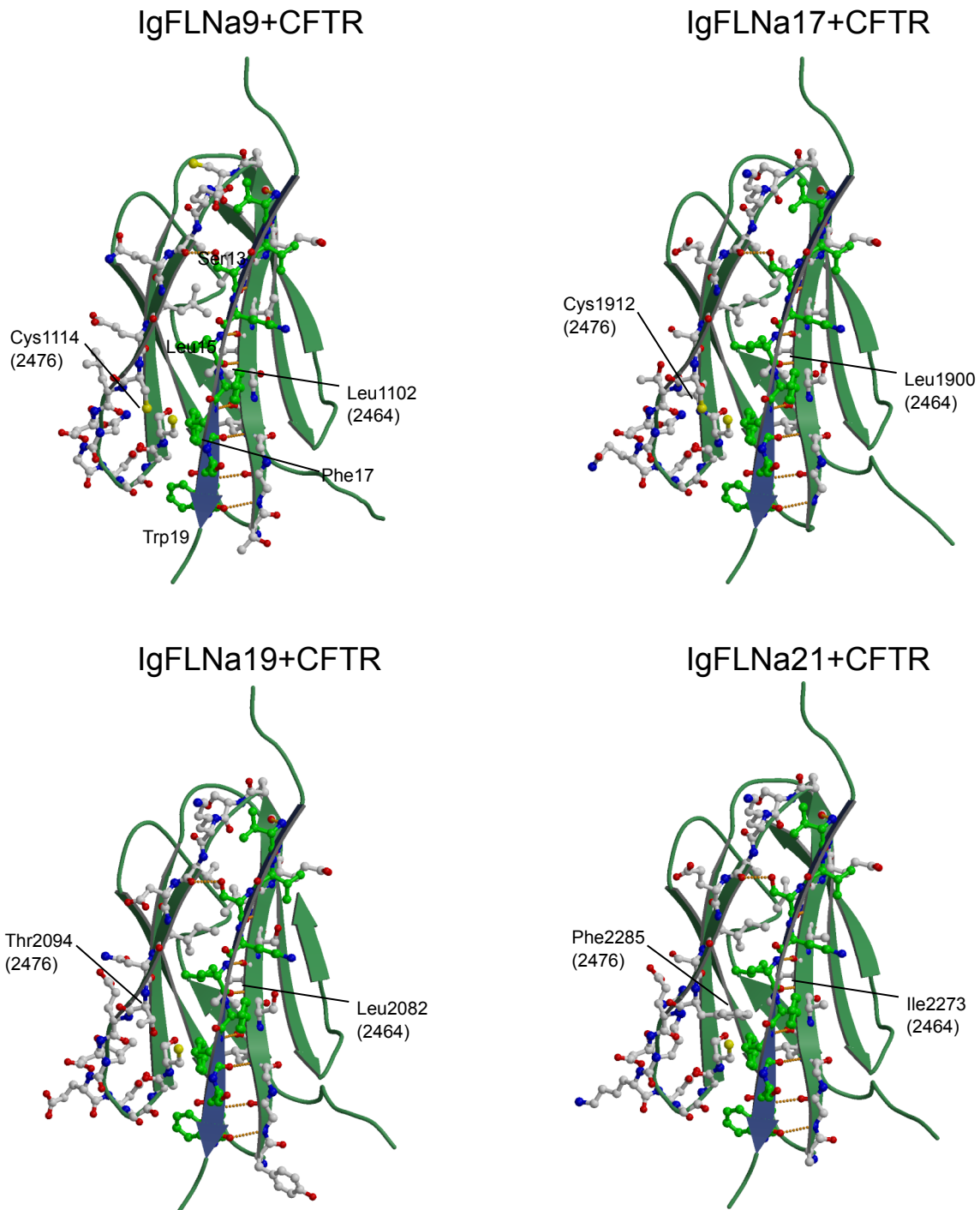
Supplemental Fig. S1. Deletions of repeats 21 and/or 23 are not sufficient to disrupt FLNa-CFTR interaction.

A. FLNa immunoblotting of CFTR peptide pulldowns from purified FLNa or FLNa lacking repeat 23. **B** and **C.** Anti-hexahistidine immunoblotting of CFTR peptide pulldowns from purified His-IgFLNa16-24 lacking repeat 21 (**B**) or both 21 and 23 (**C**).



Supplemental Fig. S2. Binding of CFTR peptide to individual repeats of FLNa.

A. Commassie blue stain of 9.5% Tris-Glycine SDS-PAGE of each purified recombinant protein (1 μg). **B** and **C.** CFTR peptide pull down assay. Bound His-EGFP-IgFLNa domain constructs were detected by immunoblotting with anti-His antibodies conjugated with peroxidase. Bound protein was quantified by densitometry and plotted (arbitrary units), assuming a 1:1 model, versus input concentration. Apparent dissociation constants (K_d) were calculated using GraphPad Prism version 5 (mean \pm S.D.; $n=3$).



Supplemental Fig. S3. In silico models of IgFLNa repeats complexed with N-terminus of CFTR.

Amino acids of CD strands and CFTR are displayed by stick model with grey and green color, respectively. Parenthesis indicates numbering corresponding to IgFLNa repeat 23.

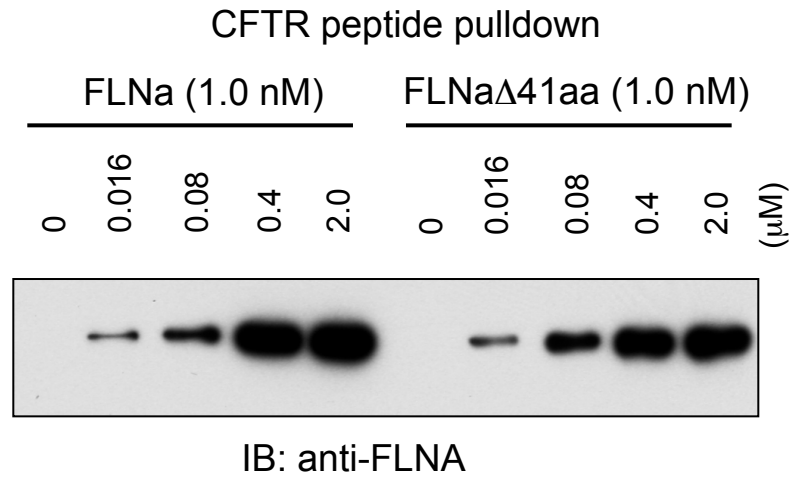
Table S1. IgFLN domain structures in PDB.

PDB	FLN isoform	Ig-like domain	Bound ligand	Reference
2eeb	B	22		Tomizawa et al., unpublished
2eec	B	23		
2di8	B	19		
2dia	B	10		
2dic	B	12		
2dj4	B	13		
2dlg	B	20		
2dmb	B	15		
2dmc	B	18		
2e91	B	20		
2e9j	B	14		
2ee6	B	21		
2ee9	B	16		
2eea	B	17		
2eed	B	24		
2d7n	C	16		
2d7o	C	17		
2d7p	C	22		
2d7q	C	23		
2di9	B	9		
2dib	B	11		
2k9u	?	?	Migfilin-peptide	Ithychanda & Chin, unpublished
2aav	A	17		(1)
2bp3	A	17	GPIIb α -peptide	(1)
2k3t	A	23		(2)
2j3s	A	19-21		(3)
2wop	A	21	Migfilin-peptide	(4)
1vo5	C	24		(5)
2jfl	A	21	Integrin β 2	(6)
2nqc	C	23		(6)
2brq	A	21	Integrin β 7	(7)
3cnk	A	24		(8)

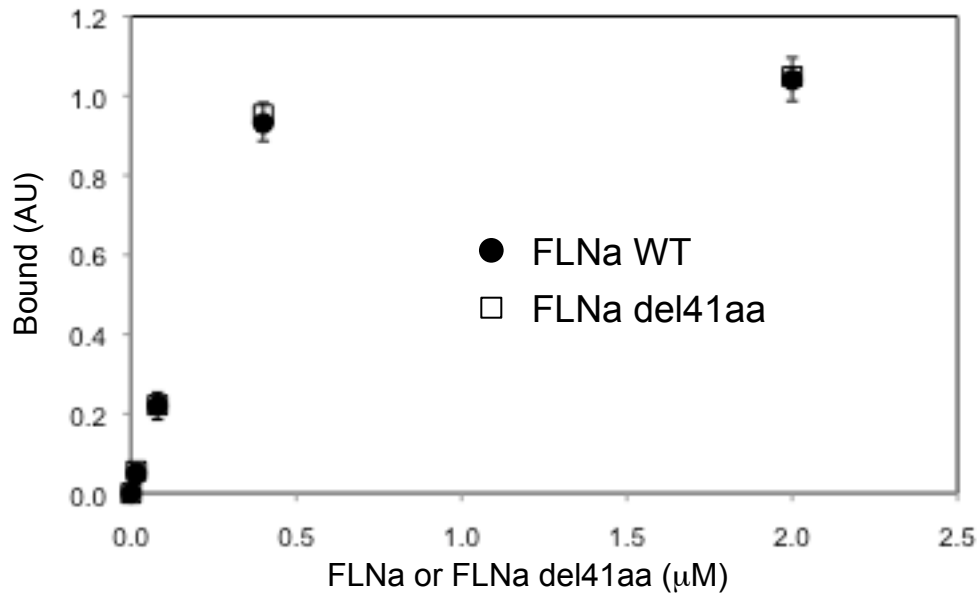
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A

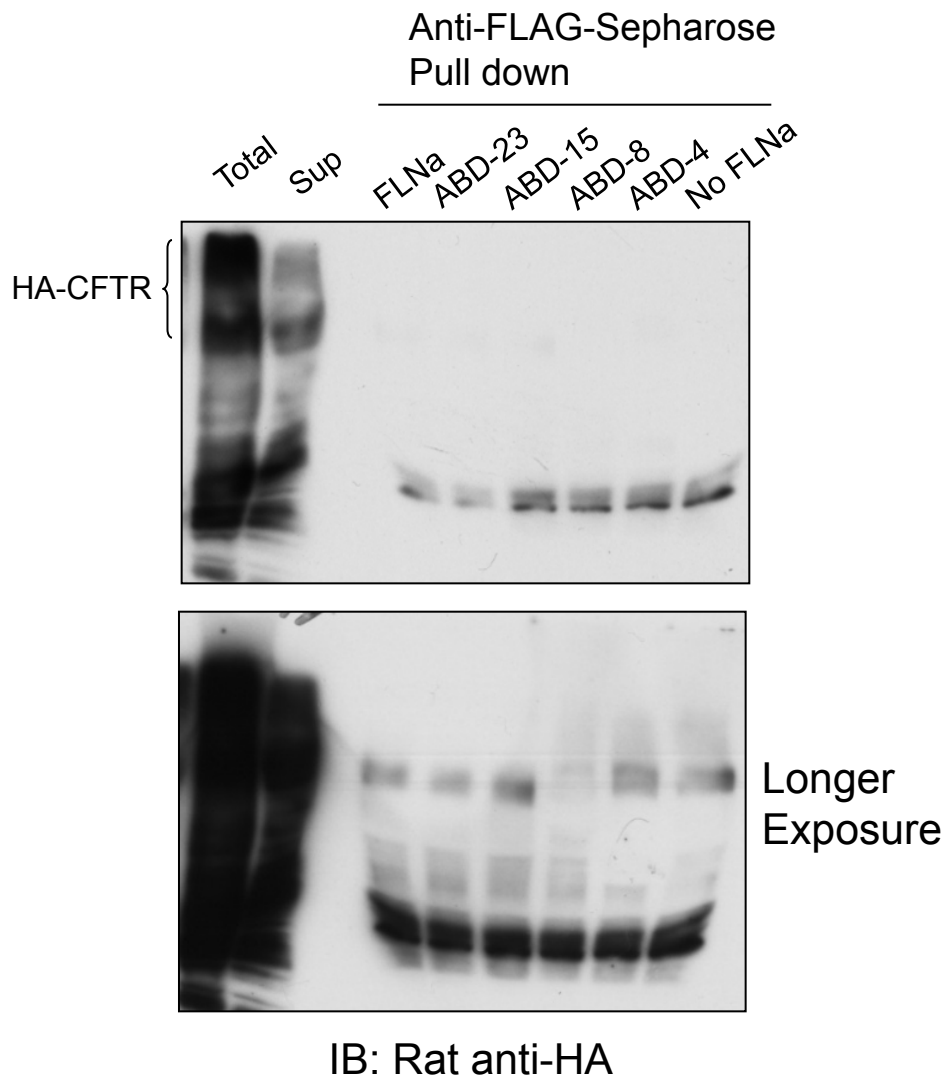


B



Supplemental Fig. S4. Exposure of autoinhibitory sites of FLNa does not enhance the CFTR-binding.

A. FLNa immunoblotting of CFTR peptide pulldowns from purified FLNa or FLNa lacking 41 amino acids (variant). **B.** Bound protein was quantified by densitometry and plotted (arbitrary units) versus input concentration. (mean \pm S.D.; $n=3$).



Supplemental Fig. S5. CFTR expressed in insect sf-9 cells do not complex with FLNa. HA-CFTR was co-expressed with FLAG-tagged FLNa constructs in sf-9 cells. After the cells were lysed with 1% TritonX-100 lysis buffer (shown as Total) and centrifuged, the supernatants (shown as Sup.) were incubated with anti-FLAG IgG immobilized Sepharose beads to pull down FLAG-FLNa constructs. Length of FLNa subunit-dependent pulldown of HA-CFTR was anticipated, but no HA-CFTR was co-immunoprecipitated.