

Appendix for
Principles of ribosome-associated protein quality control during the
synthesis of CFTR

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Appendix Figure S1

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CFTR	1	ATG	CAG	AG	GT	CG	CT	CT	GGA	AA	AG	GC	CAG	CG	TT	GT	CT	CA	AA	CT	TT	TT	TT	TC	AG	CT	GG	AC	CA	AA	TT	TT		
CFTR-OPT	1	ATG	CAG	CG	CAG	CG	CC	CT	CG	AG	AA	AG	GC	CAG	CG	TG	GT	GAG	CA	AG	CT	GT	CT	TC	AG	CT	GG	AC	CG	CC	CG	AT	CC	
CFTR	71	TG	AG	GA	AA	GG	AT	AG	CA	GC	GC	CT	GG	AA	TT	TG	TC	CA	GAC	ATA	TAC	CA	AA	AT	CC	CT	TT	CT	GT	TG	AT	TCT	GCT	GA
CFTR-OPT	71	TG	CG	CA	AG	GG	CT	TAC	CG	CAG	CG	CCT	TG	GA	AA	CT	GAG	GAC	AT	TAC	CA	AA	AT	CC	CT	CAG	CT	TG	GA	CAG	CG	CG	GA	
CFTR	141	CA	AT	CT	TCT	GA	AA	AT	TG	GA	AA	CT	GGA	TA	GAG	AG	CT	GG	TT	CA	AAG	AA	AA	TC	TAA	CT	CA	AT	T					
CFTR-OPT	141	CA	AC	CT	CAG	CG	AA	AG	CT	GG	AA	CG	CT	GGA	CC	CG	AG	CT	GG	CG	AG	CA	AA	AA	CC	CA	AG	CT	GAT	C				
CFTR	211	AAT	GCC	CT	TC	GG	CG	AT	GT	TT	TT	CT	CT	GG	AG	AT	TG	TT	CT	AT	GG	AT	CT	TT	TT	TT	AT	TT	TT	GG	GA	GT	CA	
CFTR-OPT	211	AAG	GCC	CT	CG	CG	CT	GT	CT	TT	CT	CT	GG	CG	CT	AT	GT	CT	AC	GG	AT	CT	CT	CT	CT	CT	CT	CT	CT	GG	GA	GT	GA	
CFTR	281	CCA	AG	GC	AG	TC	CAG	CC	CT	CT	TA	CT	GG	GA	GA	AT	CA	TAG	CT	TC	CT	AT	GAC	CC	GG	AT	AA	CA	AG	GAG	GA	AC	G	
CFTR-OPT	281	CCA	AG	GC	AG	TC	CAG	CC	CT	CT	TA	CT	GG	CG	CG	AT	CA	TG	CG	CA	CT	GAC	CC	CG	GA	CA	CA	AG	GAG	GA	SC	G		
CFTR	351	CT	CT	AT	CG	GA	TT	TAT	CT	GG	CA	TG	GG	CT	TT	CT	TT	AT	TG	GA	GG	AC	CT	GT	CT	CT	TA	CAC	CA					
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CFTR	421	GCC	AT	TT	TT	GG	CC	TT	CA	CAC	AT	TG	GA	AT	GC	AG	AT	GCT	AT	GT	TT	AG	TT	TG	AT	TAT	TATA	AAG	AAG	A				
CFTR-OPT	421	GG	CA	CT	CT	GG	CG	CT	CA	CAC	AT	CG	CA	TG	CA	AG	AT	CG	AT	CG	CA	TG	TT	AG	CT	GAT	CT	CA	CA	AG	AAG	A		
CFTR	491	CT	TT	AA	AG	CT	GT	CA	AG	CC	GT	GT	CT	AG	ATA	AA	AT	AAG	TAT	TG	GA	CA	AA	CT	GT	TAG	CT	CT	TT	CA	ACA	AA		
CFTR-OPT	491	CC	CT	AA	AG	CT	GT	CA	AG	CC	CG	GT	GT	CT	AG	ATA	AA	AT	AAG	TAT	TG	GA	CA	AA	CT	GT	TAG	CT	CT	TT	CA	ACA	AA	
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CFTR	911	ACT	TC	AA	TAG	CT	CAG	CC	TT	CT	CT	CT	TC	CA	GG	GT	CT	TT	TG	TGG	TG	TT	TT	TT	CT	GT	GC	TT	CC	TA	TG	CA	CT	
CFTR-OPT	911	ACT	TC	AA	TAG	CT	CAG	CC	TT	CT	CT	CT	TC	CA	GG	GT	CT	TT	TG	TGG	TG	TT	TT	TT	CT	GT	GC	TT	CC	TA	TG	CA	CT	
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CFTR-OPT	981	GAT	CA	AA	AG	GA	AT	CA	TC	CT	CG	GA	AA	AT	AT	TC	ACC	ACC	AT	CT	CA	TT	CT	GC	AT	TT	CT	GC	GC	AT	GG	CG	CT	
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CFTR-OPT	1051	AC	CG	GC	CA	TT	CC	CT	GG	GC	GT	CA	AA	CT	GG	TAT	GAC	TCT	CT	TT	GG	AG	CA	ATA	AA	CA	ATA	CAG	GAT					
CFTR	1121	TCT	TT	CA	AA	GC	AA	GA	TA	TA	AG	CA	AT	TG	GA	TA	TA	AA	CT	TT	AC	CA	CT	TA	CA	GA	GT	GT	GAT	GG	AG	AA	CT	
CFTR-OPT	1121	TC	CT	TT	CA	AA	GC	AA	GA	TA	TA	AG	CA	AT	TG	GA	TA	TA	AA	CT	TT	AC	CA	CT	TA	CA	GA	GT	GT	GAT	GG	AG	AA	CT
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CFTR-OPT	1261	ACC	AG	CA	AA	GG	CG	AG	CAG	CC	CT	TT	CT	TC	AG	TA	AT	TT	CT	CA	CT	TT	CT	TT	GG	TACT	CT	CT	CT	GAA	AG	ATA		
CFTR	1331	TTA	AT	TT	CA	AG	AT	AG	AA	AG	AG	CA	GT	TG	TG	GC	GG	TG	CT	GG	AT	CC	ACT	GG	AG	CA	GG	CA	AG	ACT	TT	CA	CT	
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CFTR-OPT	1401	GCT	TA	TG	AT	GAT	TAT	TGG	GA	CA	CT	GG	AG	CC	TT	CA	GAG	GG	TAA	AA	TT	TAG	CAC	AG	TG	GA	AA	CA	AT	TT	CA	TT	C	
CFTR	1471	TG	TT	CT	CAG	TT	TT	CT	GG	AT	TAT	GCT	GG	CACC	AT	TAA	GA	AA	AT	AT	CA	TCT	TT	GG	T	GT	TT	CT	AT	GAT	AT			
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CFTR-OPT	1541	AG	TAC	CG	CT	AC	CG	TC	AT	CA	AA	GC	AT	GCC	AA	CT	AG	AA	GAG	GAC	AT	CT	CA	AG	TT	TG	CA	GAG	AA	GA				
CFTR	1611	CA	AT	TAT	AG	TCT	TT	GG	AG	AG	GG	TG	GA	AT	CAG	AT	GAG	TG	GA	GG	TCA	CG	AG	CA	AG	AA	TT	TCT	TT	TG	CA	GA		
CFTR-OPT	1611	CA	AT	TAT	AG	TCT	TT	GG	AG	AG	GG	TG	GA	AT	CAG	AT	GAG	TG	GA	GG	TCA	CG	AG	CA	AG	AA	TT	TCT	TT	TG	CA	GA		

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CFTR 1961 GTGCAGAGAGAAAGAAATTCATCCTTACTGAGACCTTCACCCGTTCTCATTPAGAGGAGATGCTCCTGT
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7A11 1331 ATTCGACCCATTTAGTTACAGGGATTGGCTTCGTATCACTCTGACTGGAGTCCCTGCGTATTATCTCTT
7A11-OPT 1331 ACAGCGACCCCTTTCTCTACAGGCATCGGCTTTGTATCACCCCTGACAGGGGTGCTGCTGCTATCTCTT

7A11 1401 TATTATATGGGACAAGAAACCCAGGTGGTTAGAAATAATCTCGGAGAAATAACACAGAACATTACAAATA
7A11-OPT 1401 CATCATCTGGGATAAGAAACCAAGGTGGTTAGAAATCATCAGCGAGAAATACACAGAACACTGCAGATC

7A11 1471 ATACTGGAGGTGTGACCAAGAGAGATAAGTTA
7A11-OPT 1471 ATCTGGAGGTGTGCCCCAGAGAGATAAGCTG

Legend to Appendix Figure S1.

Sequence alignment of native and codon-optimized CFTR (A) and SLC7A11 (B). Segments encoding for TM regions are marked in orange.