

Supplementary Table 1

Protein construct	Residues	Mutations	Vector	Figures	
				Main	Extended Data
PLS1					
PLS1 _{WT} -mEmerald	1-629	N/A	pcDNA3.1	6	6
PLS2					
FL _{PLS2} /PLS2 _{WT}	1-627	N/A	pColdTEV	1, 3, 5	3, 5
ABD1 _{PLS2}	87-379	N/A	pColdTEV	1, 2, 5	2
ABD2 _{PLS2}	380-627	N/A	pColdTEV	1, 2	1, 2
RD-ABD1 _{PLS2}	1-379	N/A	pColdTEV	2	
PLS2 _{S5D}	1-627	S5D	pColdTEV	3, 5	
PLS2 _{L475P}	1-627	L475P	pColdTEV	3, 5	3
PLS2 _{S406E}	1-627	S406E	pColdTEV	5	5
ABD2 _{S406E}	380-627	S406E	pColdTEV	5	
PLS2 _{WT} -mEmerald	1-627	N/A	pcDNA3.1	6	6, 7
PLS2 _{S5D} -mEmerald	1-627	S5D	pcDNA3.1	6	6
PLS2 _{S406E} -mEmerald	1-627	S406E	pcDNA3.1	6	6, 7
PLS2 _{KKEE} -mEmerald	1-627	KK542,545EE	pcDNA3.1	6	6
PLS2 _{S406E-KKEE} -mEmerald	1-627	SKK406,542,545EEE	pcDNA3.1	6	6
PLS3					
ABD1 _{PLS3}	92-389	N/A	pColdTEV	2	
RD-ABD1 _{PLS3}	1-389	N/A	pColdTEV	2	
RD-ABD1 _{Q194C}	1-389	CysNull* + Q194C	pColdTEV	4	4
RD-ABD1 _{A216C}	1-389	CysNull* + A216C	pColdTEV		4
RD-ABD1 _{L226C}	1-389	CysNull* + L226C	pColdTEV		4
RD-ABD1 _{G229C}	1-389	CysNull* + G229C	pColdTEV		4
PLS3 _{WT} -mEmerald	1-630	N/A	pcDNA3.1	6	6
PLS3 _{S409E} -mEmerald	1-630	S409E	pcDNA3.1	6	6
PLS3 _{L478P} -mEmerald	1-630	L478P	pcDNA3.1	6	6
PLS3 _{S409E-L478P} -mEmerald	1-630	SL409,478EP	pcDNA3.1	6	6
PLS3 _{KKEE} -mEmerald	1-630	KK543,545EE	pcDNA3.1	6	6
PLS3 _{S409E-KKEE} -mEmerald	1-630	SKK409,543,545EEE	pcDNA3.1	6	6

Supplementary Table 1. PLS constructs used in the present study

N/A – not applicable.

* In CysNull PLS3 construct the following nine Cys residues were substituted by Ala: 33, 104, 143, 167, 209, 349, 463, 566, 621.