

**Table S9** List of all the salt bridges in WT and mutant 6B

WT(1I6W)	No. Frames(out of 10002) with COM of charges $\leq 5\text{\AA}$	6B(3QMM)	No. Frames(out of 10002) with COM of charges $\leq 5\text{\AA}$
ASP118-LYS69	383	ASP111-ARG107	8245
ASP118-LYS70	9622	ASP111-ARG142	208
ASP133-HIS152	14	ASP111-LYS112	813
ASP133-HIS156	6687	ASP111-LYS88	10
ASP144-ARG107	7725	ASP118-LYS69	471
ASP144-ARG142	2463	ASP118-LYS70	7868
ASP144-LYS112	1857	ASP132-HIS152	4
ASP34-ARG33	383	ASP133-HIS156	7092
ASP34-HIS3	1	ASP144-ARG107	1274
ASP34-LYS35	5454	ASP144-ARG142	2261
ASP40-ARG57	0	ASP144-LYS112	8633
ASP40-HIS10	15	ASP34-ARG33	218
ASP40-LYS44	26	ASP34-LYS35	8430
ASP64-LYS61	599	ASP40-ARG57	14
ASP72-HIS3	0	ASP40-HIS10	90
ASP91-LYS95	9667	ASP40-LYS44	3513
GLU171-ARG147	618	ASP40-LYS61	16
GLU171-LYS170	2886	ASP43-HIS10	0
GLU65-ARG33	0	ASP64-LYS61	338
GLU65-LYS35	2	ASP72-HIS3	23
GLU65-LYS61	5545	ASP72-LYS70	581
		ASP91-ARG57	0
		ASP91-LYS95	4165
		GLU171-ARG147	3490
		GLU171-LYS170	2026
		GLU20-ARG33	6556
		GLU65-LYS35	261
		GLU65-LYS61	4634
		GLU20-LYS23	8755