Supplementary Information

Table S1. Prediction of protein stability change in mutants with SDM.

ΔΔG (kcal/mol)						
<−2.0	−2.0≤ & <−1.0	−1.0≤ & <−0.5	−0.5≤ & ≤0.5	0.5< & ≤1.0	1.0< & ≤2.0	>2.0
Highly destabilizing	Destabilizing	Slightly destabilizing	Neutral	Slightly stabilizing	Stabilizing	Highly stabilizing
-	-	-	Y110A (−0.23) W113A (−0.45) A114W (−0.09) Y129A (−0.37)	-	-	K76A (3.43)

Table S2. Prediction of protein stability change in mutants with I-Mutant.

ΔΔG (kcal/mol)		
≤−0.5	−0.5≤ & ≤0.5	>0.5
Decrease in protein stability	Neutral	Iecrease in protein stability
Y110A (−0.84) W113A (−1.32) Y129A (−1.76)	K76A (−0.50) A114W (−0.34)	-