

**Table S1.** Percentage of secondary structures of different types in mutant K64A and E78A and wild type of OsGSTU17

Protein	Helix	Antiparallel	Parallel	Beta-Turn	Rndm. Coil
WT[28]	28.8%	14.7%	9.0%	18.1%	32.3%
K64A	25.6%	19.3%	9.9%	18.7%	34.9%
E78A	23.4%	22.6%	10.5%	19.1%	36.7%

Note: Helix represents  $\alpha$ -helix; Antiparallel represents antiparallel  $\beta$ -sheet; Parallel represents  $\beta$ -sheet; Beta-Turn represents  $\beta$ -turn; Rndm. Coil represents random coil. The values for the wild type were obtained from our previous study [28].