Supporting information

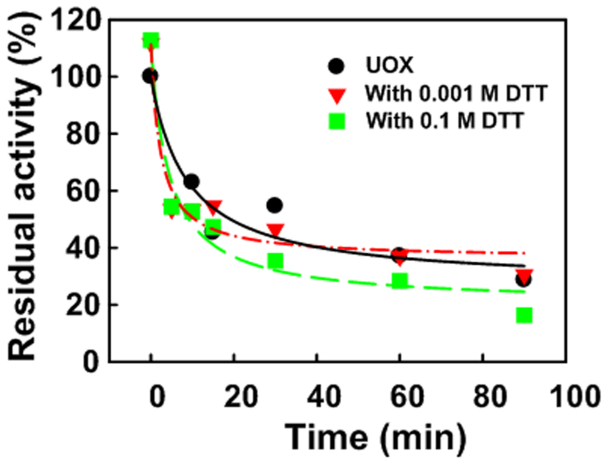

Figure S1. Effect of dithiothreitol (DTT) on the residual activity of rUOX from *A. flavus*. 0.01 mg·mL^{-1} of rUOX was incubated in the presence of DTT of 0, 0.001 and 0.1 M at 45ºC in 20 mM phosphate buffer (pH7.0) containing 0.15 M NaCl. The residual activity is determined with reference to the initial activity.

The degradation lactoperoxidase system at moderately acidic pH has been recognized as the reason leading to the deactivation of UOX from *Candida utilis*. This is because one of the cysteine residues participates in the enzymatic raction is sensitive to the oxidant. It is reported that the addition of reductive agents can enhance the thermal stability of UOX.[1,2] For *Aspergillus flavus* UOX, we examined the effects of dithiothreitol (DTT) , a reductive agent, on thermal stablity of UOX. As shown by Figure S1, DTT showed no protection effect on the thermal stability of UOX.. It can thus infer that the thiol groups is not crucial to the activity of UOX from *A. flavus* and oxidation is not the reason for the quick loss of UOX activity.

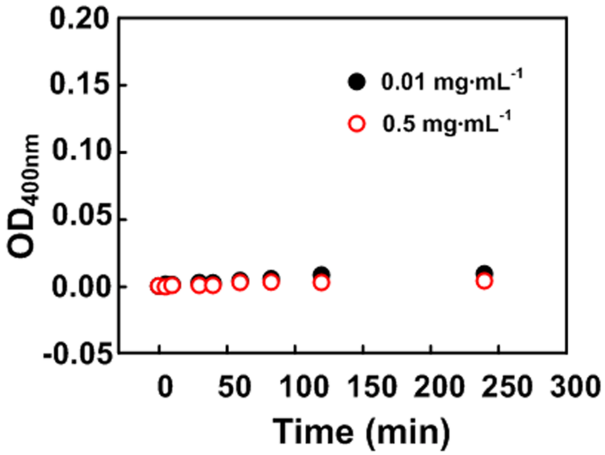

Figure S2. Turbidity of rUOX at 45ºC. rUOX of different concentrations were incubated in 20 mM phosphate buffer (pH7.0) containing 0.15 M NaCl. Absorbance for the samples at 400 nm was recorded at given time.

Aggregation of UOX was determined by measuring the changes of turbidity at 45ºC in 20 mM phosphate buffer (pH 7.0) containing 0.15 M NaCl. As shown by Figure S2, no increase in the turibidity was observed for UOX of different concentration. This excluded the possibility of aggregation induced deactivation of *A. flavus* UOX.

References

1. Y. Koyama, T. Ichikawa and E. Nakano, J. Biochem., 1996, 120, 969-973.
2. T. Odajima and M. Onishi, Cell. Biochem. Funct., 1998, 16, 139-147.