Supplementary Information

Efficient Biodegradation of Patulin by *Aspergillus niger* FS10 and

Metabolic Response of Degrading Strain

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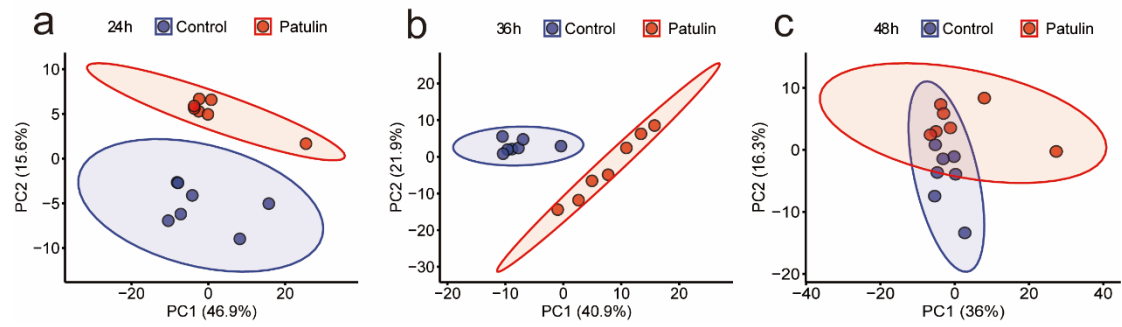
Figure S1 PCA of control samples (blue) and patulin treatment samples (red) in different degradation time. (a) 24 h, Variance of PC_1 is 46.9% and variance of PC_2 is 15.6%. (b) 36 h, Variance of PC_1 is 40.9% and variance of PC_2 is 21.9%. (c) 48 h, Variance of PC_1 is 36% and variance of PC_2 is 16.3%. Results are expressed as means of seven replicates.
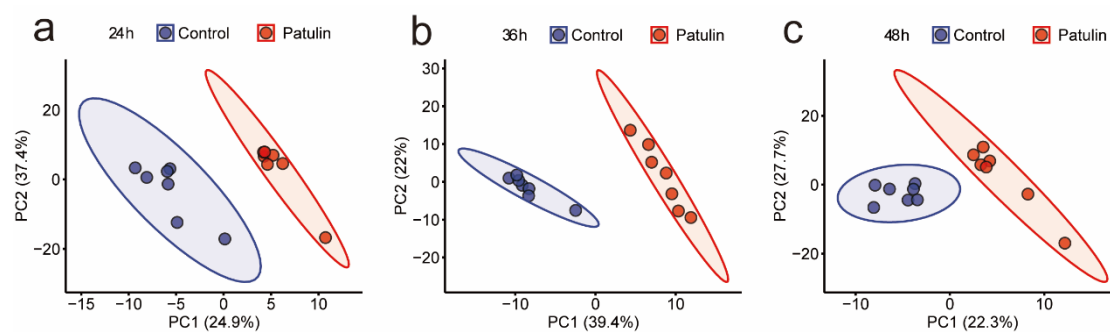
Figure S2 Partial Least Squares Discrimination Analysis（PLS-DA）(a) 24 h. (b) 36 h. (c) 48 h. The control group (blue), the patulin treatment group (red). There was a significant separation between each group, indicating that there was a significant difference in the metabolism of A. niger FS10 between the control group and the patulin treatment group.
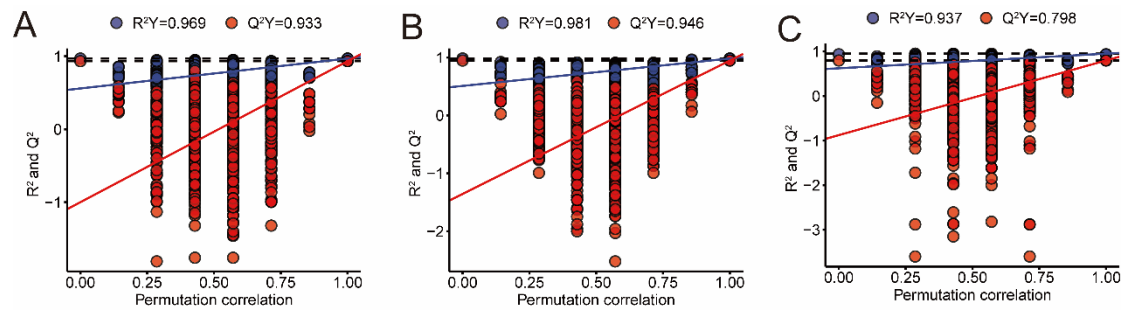
Figure S3 Permutation test (A) 24 h, $R^2Y=0.969$, $Q^2Y=0.933$. (B) 36 h, $R^2Y=0.981$, $Q^2Y=0.946$. (C) 48 h, $R^2Y=0.937$, $Q^2Y=0.798$. The scores of R^2Y and Q^2Y in each group were higher, which indicated that the prediction of the model was reliable and could be used for the analysis of differential metabolites.
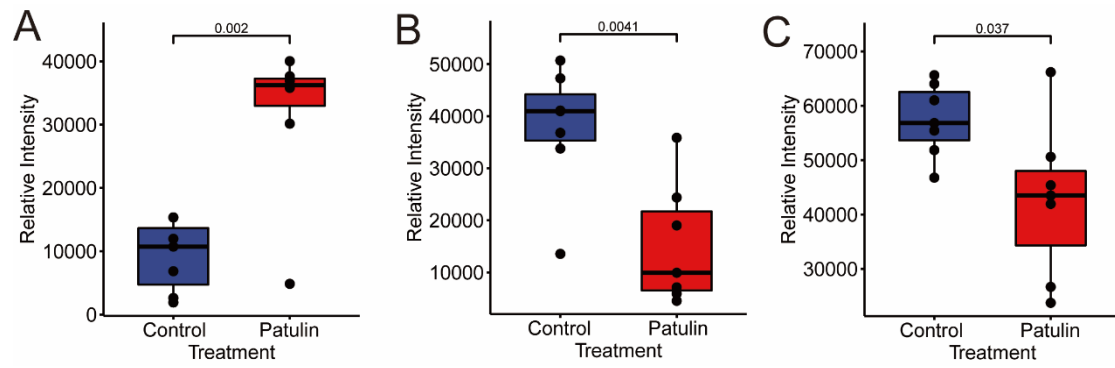
Figure S4 Boxplots of the relative concentration change of glutathione. (A) 24 h. (B) 36 h. (C) 48 h. The control group (blue), the patulin treatment group (red)