

Figure S1. Homologous comparison of the conserved domain of NmrA in filamentous ascomycetes and *G. lucidum*. These filamentous ascomycetes include *A. calidoustus* [CEN60345.1], *A. lentulus* [XP\_033411412.1], *A. mulundensis* [XP\_026608239.1], *A. nidulans* [AAC39442.1], *F. fujikuroi* [CAA75863.1], *N. crassa* OR74A [XP\_961314.3].

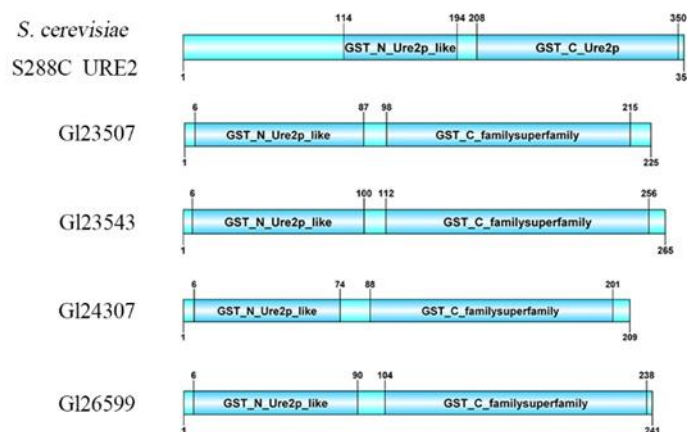


Figure S2. Analysis of conserved domains of the Ure2 in *S. cerevisiae* and four suspected homologous Ure2 in *G. lucidum*.

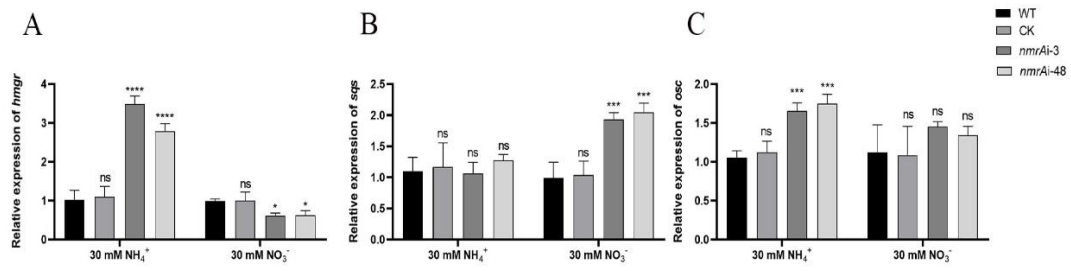


Figure S3. Expression levels of GA synthesis genes (*hmgR*, *sqs* and *osc*) in the WT, CK, and *nmr* silenced strains under the ammonium and nitrate conditions. All data are presented as means  $\pm$  SDs (n = 3). Statistical significance is represented by asterisks (one way ANOVA, \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , \*\*\*\*  $p < 0.0001$ , ns: no significance).