# Cover sheet of the Supporting Information

**Neuroprotective effect of probiotic on anxiety- and depression-like disorders in stressed mice by modulating tryptophan metabolism and gut microbiota**

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\* Weitao Geng; Phone: +86-22-60912442; Fax: +86-22-60912442; E-mail: gengwt@tust.edu.cn

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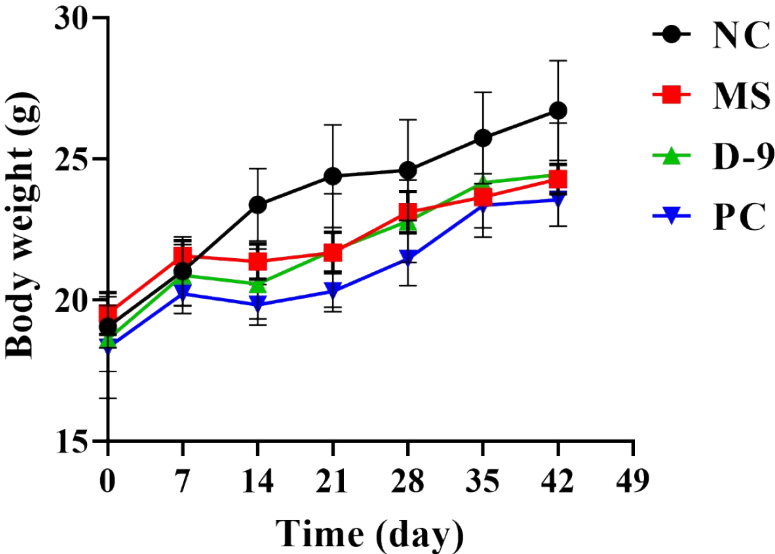**Figure S1.** Effects of *Lactiplantibacillus plantarum* D-9 on the body weight of CUMS mice.

**Figure S2.** Construction of the CUMS model. (A) SPT analysis. (B) Movement trajectory, (C) upright and cross-grid numbers, and (D) time-consuming in central area in the OFT. (E) EPM analysis. (F) TST analysis. (G) FST analysis. The values represent means ± SEM (n = 8). * $p <$ 0.05, ** $p < 0.01$, *** $p < 0.001$.
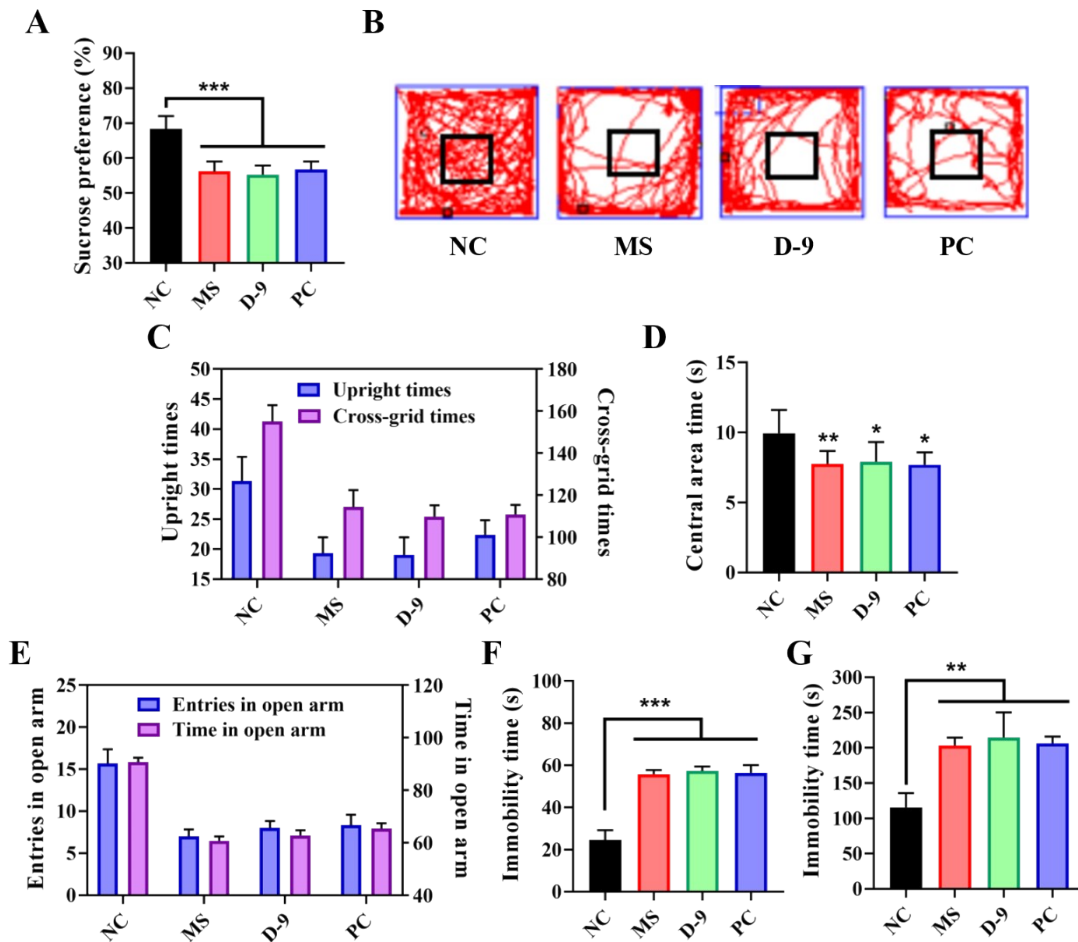
**Figure S3.** Concentrations of GABA in (A) hippocampus, (B) blood and (C) feces that measured using ELISA kit. $*$ $p < 0.05$, $**$ $p < 0.01$, $***$ $p < 0.001$, compared to the NC group. $\#$ $p < 0.05$, $\#\#$ $p < 0.01$, $\#\#\#$ $p < 0.001$, compared to the MS group.
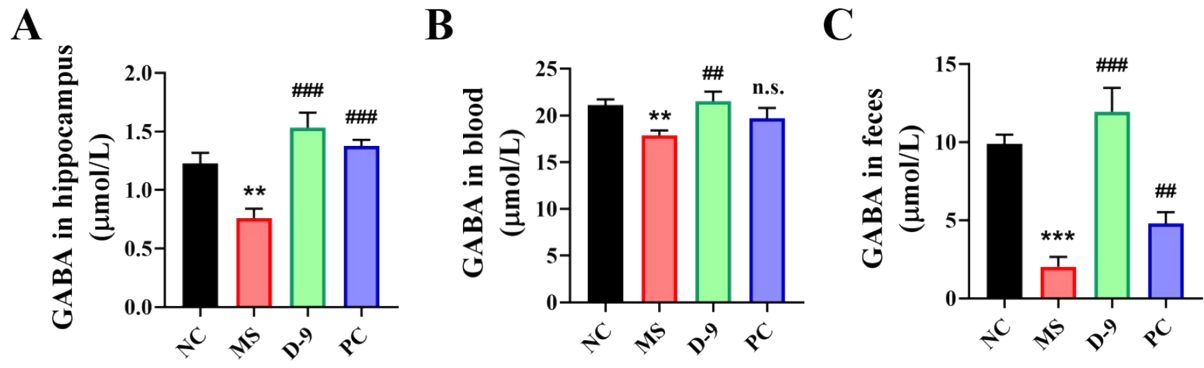
**Figure S4.** Clean tags and operational taxonomic units (OTUs) in NC, MS, D-9 and PC groups analyzed by 16S rRNA gene sequencing.