

Supplementary Materials and Methods

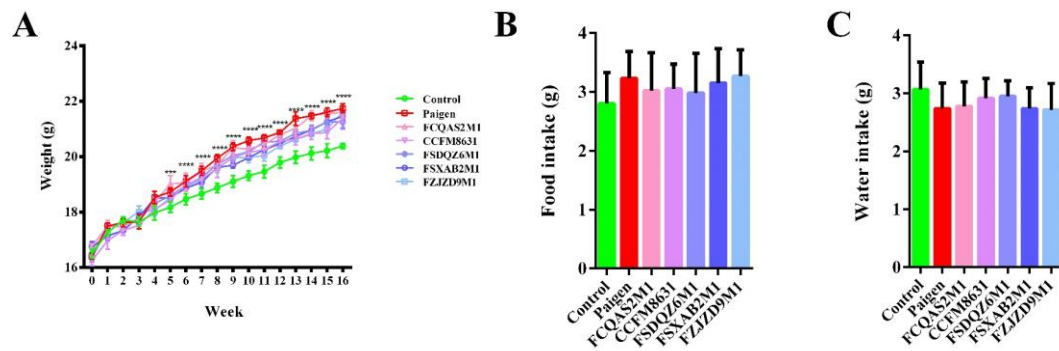


Figure S1. The effects of *Lactobacillus* and *Bifidobacterium* administration on body weight, food intake and water intake. (A) Effects of *Lactobacillus* and *Bifidobacterium* on body weight. Compared with Control group, *** $p < 0.001$, **** $p < 0.0001$. (B) Effects of *Lactobacillus* and *Bifidobacterium* on food intake. (C) Effects of *Lactobacillus* and *Bifidobacterium* on water intake. n=8.

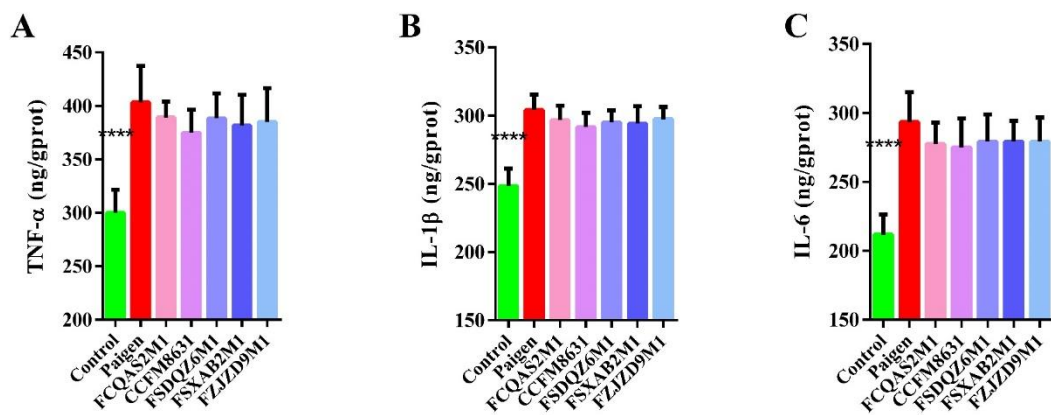


Figure S2. Effects of *Lactobacillus* and *Bifidobacterium* on the levels of liver pro-inflammatory cytokines. (A) Liver TNF- α concentrations. (B) Liver IL-1 β concentrations. (C) Liver IL-6 concentrations. Compared with Paigen group, **** $p < 0.0001$. n=8.

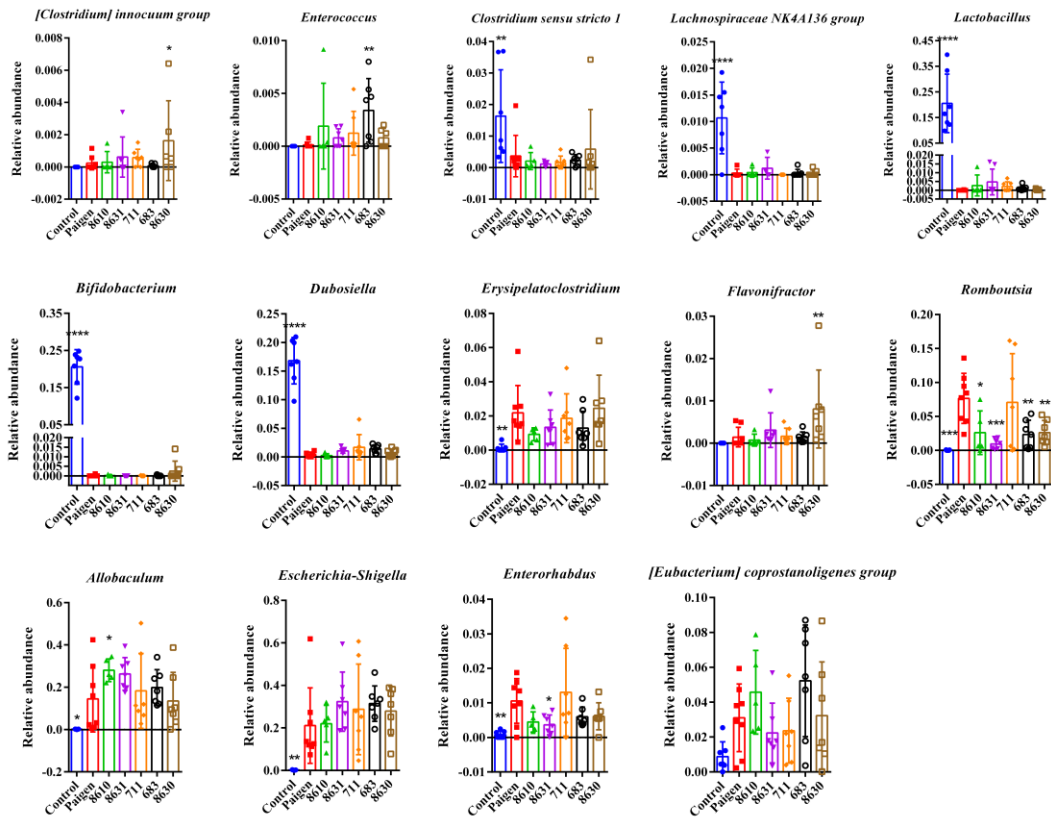


Figure S3. Relative abundance of the genus level. n=8. Compared with Paigen group, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$.

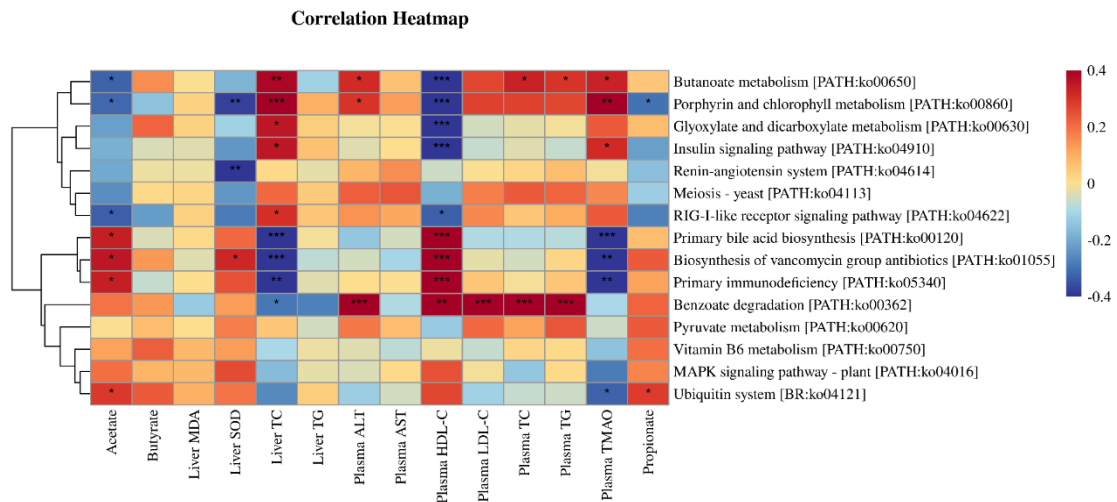


Figure S4. Correlation between the measured indicators and the significant pathway/function. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.