

Supplementary information for

***Akkermansia muciniphila* ameliorates depressive disorders in murine alcohol-LPS (mALPS) model**

Supplementary Figures Captions:

Figure S1. Binge alcohol consumption alone could not cause depression-like behavior in mice.

Figure S2. Impact of different dose of LPS on the serum LPS (A) and behaviors (B-E). * $p < 0.05$, ** $p < 0.01$, ns: Non-significant.

Figure S3. Beta diversity in Control and LPS.

Supplementary Table Caption:

Table S1: Primers used in quantitative PCR analysis

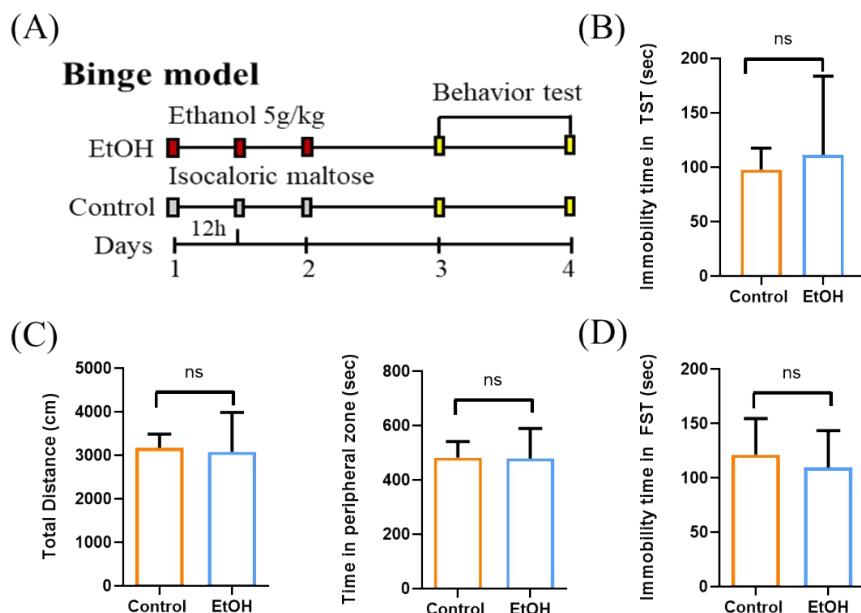


Figure S1. Binge alcohol consumption alone could not cause depression-like behavior in mice. (A)The timeline of binge alcohol-fed model of mice; (B)The impact of binge alcohol consumption in TST (C)The impact of binge alcohol consumption in the OFT:the total travel distance of mice in OFT(left), the time of mice spent in the peripheral zone in OFT(right); (D)The impact of binge alcohol consumption in FST;. ns: Non-significant.

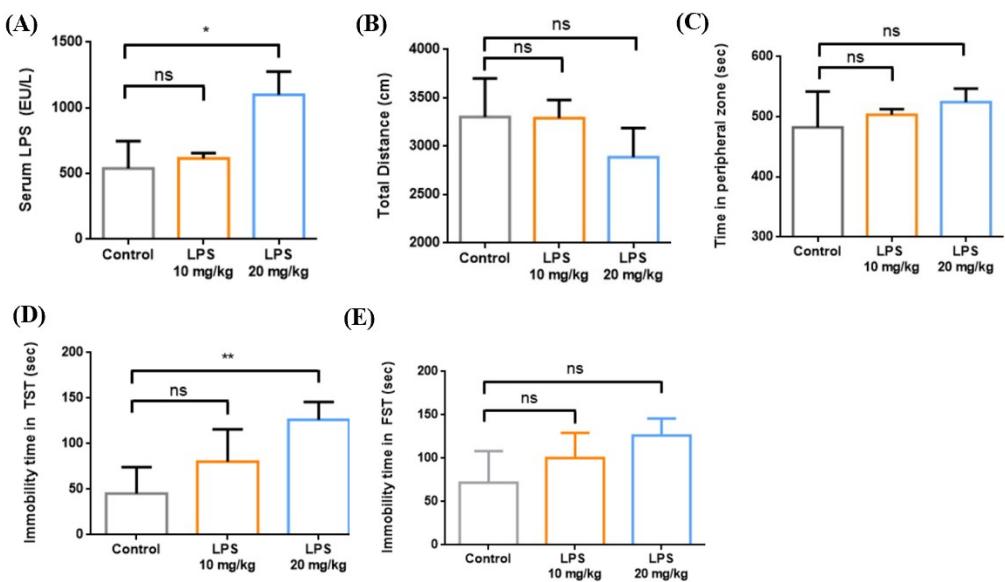


Figure S2. Impact of different dose of LPS on the serum LPS (A) and behaviors (B-E). * $p < 0.05$, ** $p < 0.01$, ns: Non-significant.

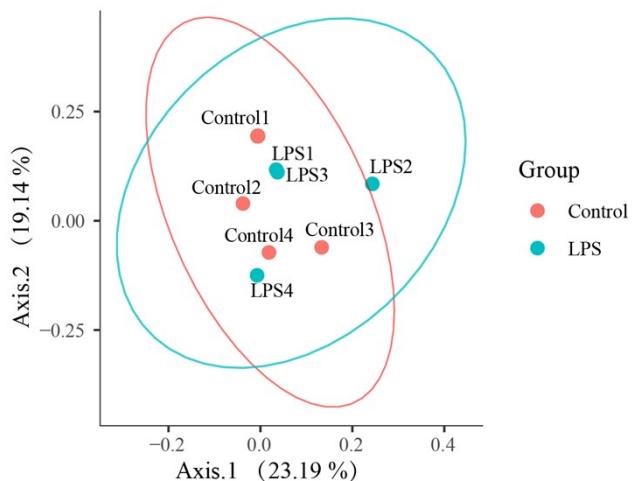


Figure S3. Beta diversity in Control and LPS.

Table S1 Primers used in quantitative PCR analysis

Gene	Forward primer	Reverse primer
TNF- α	AGCCGATGGGTTGTA	ACTTGGGCAGATTGA
IL-1 β	GCTTCAGGCAGGCAGTATCA	TGCAGTTGTCTAAATGGGAACG
BDNF	TCATACTTCGGTTGCATGAAGG	AGACCTCTCGAACCTGCC
IDO	CGGACTGAGAGGACACAGGTTAC	ACACATACGCCATGGTAGTGTAC

Ocld	ATGTCCGGCCGATGCTCTC	TTTGGCTGCTCTGGGTCTGTAT
Cldn-3	TCATCGGCAGCAGCATCATCAC	ACGATGGTGATCTTGGCCTTGG
GAPDH	TCACCACCATGGAGAAGGC	GCTAAGCAGTTGGTGGTGCA
