Supplementary Material

**The probiotic effectiveness in preventing experimental colitis is correlated with host gut microbiota**

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## Supplementary Figures



**Supplementary Figure S1.** Host commensal microbiota dramatically affect DSS-induced colitis severity. Fecal samples collected from cohort A and B mice were transferred to male C57Bl/6 WT mice. Mice challenged only with DSS but received no antibiotics and fecal transplantation were used as control (DSS group). **(a)** Schematic diagram of experimental design. **(b)** The body weight changes during DSS treatment. **(c)** Survival curve. **(d)** Mean colon length in cm. Colons were collected on day 10 post DSS initiation. **(e)** Representative images of H&E stained distal colon tissues from indicated mice (magnification: 200x). **(f)** Histologic scores. All data are given as means±SEMs. \**P*<0.05, \*\**P*<0.01; \*\*\**P*<0.001. FT, fecal transplant.

**Supplementary Figure S2.**  HFD-feeding changed microbiota landscape in cohort B mice. Mice were fed on high-fat diet for 6 weeks. All Fecal samples were collected before DSS challenge. Bray-Curtis distances between different groups of mice as indicated were calculated according to fecal bacterial 16S rRNA sequencing data. \*\*\**P*<0.001. ND, normal diet; HFD, high-fat diet.