

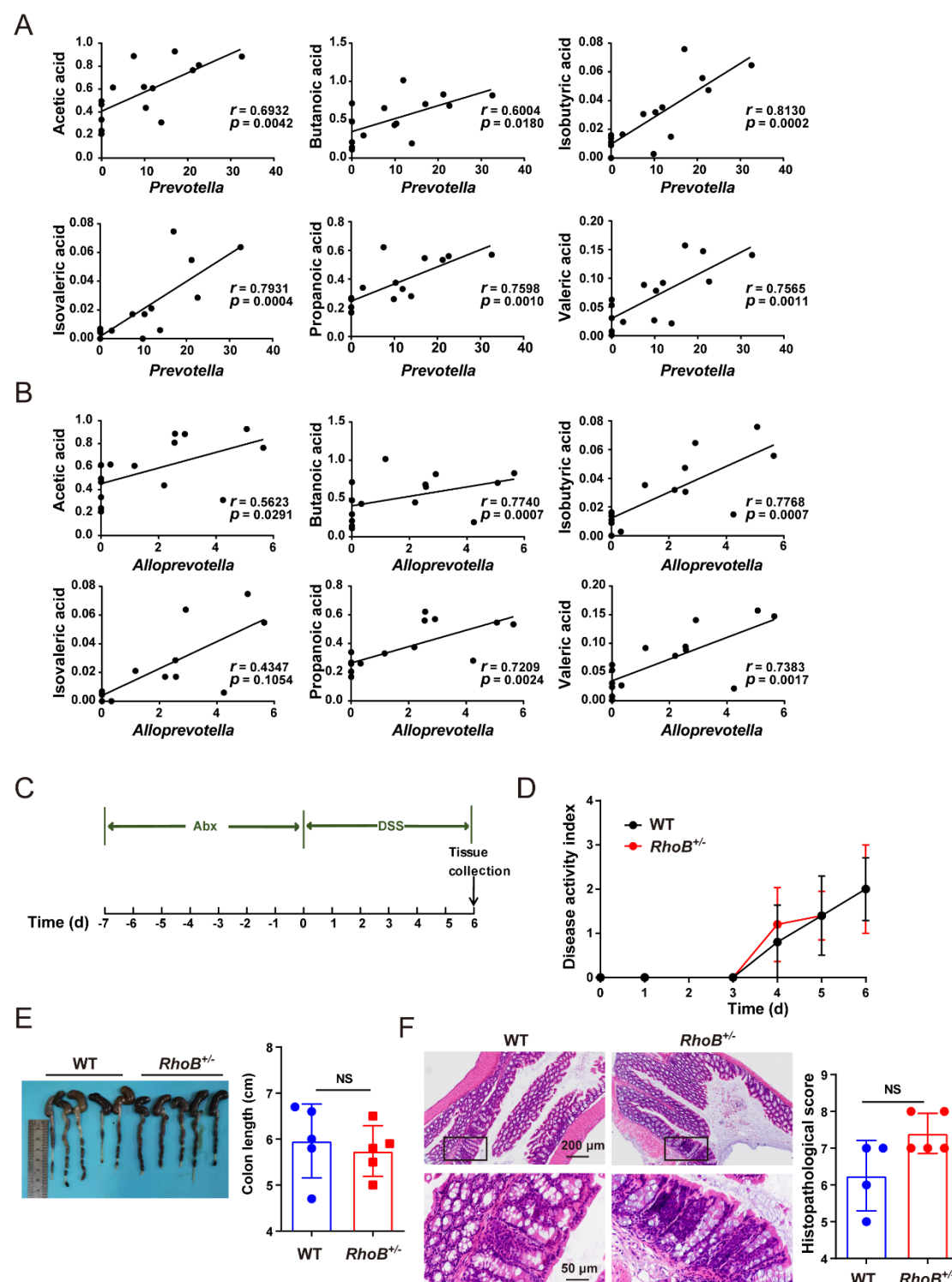


Figure S6. SCFA concentrations are positively correlated to the relative abundance of *Prevotella* and *Alloprevotella*. (A) Pearson's correlation between the relative abundance of *Prevotella* and SCFAs in fecal from WT, $RhoB^{+/+}$, and $RhoB^{-/-}$ mice ($n = 15$). (B) Pearson's correlation between the relative abundance of *Alloprevotella* and SCFAs in fecal from WT, $RhoB^{+/+}$, and $RhoB^{-/-}$ mice ($n = 15$). (C-F) Abx treatment eliminates the difference in the colitis phenotype of WT and $RhoB$ -deficient mice ($n = 5$). (C) Scheme of Abx treatment protocol. (D) Disease activity index of WT and

RhoB^{+/-} mice. **(E)** Measurement and quantification of colon length in WT and *RhoB*^{+/-} mice. **(F)** Representative H&E staining analysis of histopathological changes and quantitation of histology score in colons of WT and *RhoB*^{+/-} mice. Boxed areas in colon sections are enlarged and shown at the bottom panel. Scale bar: 200 μ m or 50 μ m. Data are the mean $\pm$ SD. Significance is determined using linear regression (A-B) or two-way ANOVA (D) or unpaired Student's t-test (E and F). NS, not significant.