

**Supplementary Figure 1.** Susceptibility during acute injury induced by DSS is not affected by Card9 deficiency. (**A**) Weight loss in DSS-treated wild-type (WT) and Card9-null (KO) mice. (**B**) Colon length of WT and KO mice after 7 days of DSS treatment. (**C**) Histology score of WT and KO mice after 7 days of DSS treatment. (**D**) H&E staining of representative cross-sections of murine medial colon (original magnification 20x) after 7 days of DSS treatment. Data are representative of at least 3 independent experiments. Error bars represent SEM.



**Supplementary Figure 2.** Immune responses to DSS exposure. (**A**) Systemic IL-6, TNF $\alpha$ , and IL-17A were assessed by ELISA on serum harvested 5 days after withdrawal of DSS treatment in wild-type (WT) and Card9-null (KO) mice (n=5 per group). (**B**) MCP1 expression in colon of WT and KO mice after 7 days of DSS (Day 7) or following 5 days of recovery (Day 12), as quantified by qRT-PCR. Data are shown as fold changes relative to WT mice without DSS for each time point (\*\**P* < .01). (**C-D**) Proportion (C) and number (D) of CD3+CD4+IL-17A+ cells in colon LP harvested 5 days after DSS was discontinued.



SFB in fecal microbiota

**Supplementary Figure 3.** Levels of segmented filamentous bacteria (SFB) in the fecal microbiota of wild-type (WT) and Card9-null (KO) mice. Data were quantified by qRT-PCR and normalized to the  $C_{T}$  value of the "all bacteria" 16S rRNA gene. Data are plotted relative to WT mice. *n* = 5. Error bars represent SEM.



**Supplementary Figure 4.** Secretion of IFN $\gamma$  is reduced in MLN of Card9-null (KO) mice infected with *C. rodentium* compared to wild-type (WT) mice. (**A-B**) Secretion of IFN $\gamma$  by MLN (A) and spleen (B) cells of WT and KO mice at 5 and 14 days after infection by *C. rodentium*. Cells were stimulated with either plate-bound anti-CD3 monoclonal antibodies or *C. rodentium* antigen. Data are representative of at least 2 independent experiments (*n* = 5). Error bars represent SEM. \**P* < 0.05.