

**Supplementary Figure 1.** Immunophenotyping of *Mtg16*<sup>-/-</sup> colons at baseline. (A) Immunophenotyping using flow cytometry of WT or *Mtg16*<sup>-/-</sup> colons [WT (N=6) or *Mtg16*<sup>-/-</sup> (N=6) colons]. (B) Multianalyte profiling using the Luminex platform demonstrating increased IL-17, IL-4, and MIP-1β in *Mtg16*<sup>-/-</sup> colons.

**Supplementary Figure 2.** *Mtg16* expression is diminished by either DSS or *C. rodentium* mediated colitis. qRT PCR performed on control [N=7 (DSS) or 9 (*C. Rodentium*)] or injured colons from WT mice treated with either (A) DSS (N=9) or (B) *C. rodentium* infection (N=9). *P*<0.0001

**Supplementary Figure 3.** Immunophenotyping of *Mtg16*<sup>-/-</sup> colons after 4 days of DSS treatment. (A) Immunophenotyping using flow cytometry of WT or *Mtg16*<sup>-/-</sup> colons (WT (n=6) or *Mtg16*<sup>-/-</sup> (n=6) colons). (B) Multianalyte profiling using the Luminex platform demonstrating increased IL-17, IL-4, and MIP-1β in *Mtg16*<sup>-/-</sup> colons.

**Supplementary Figure 4.** Transmission electron microscopy of *Mtg16*<sup>-/-</sup> or WT colons. Arrowhead indicates apical junctional complexes.