Supplemental Figure 1

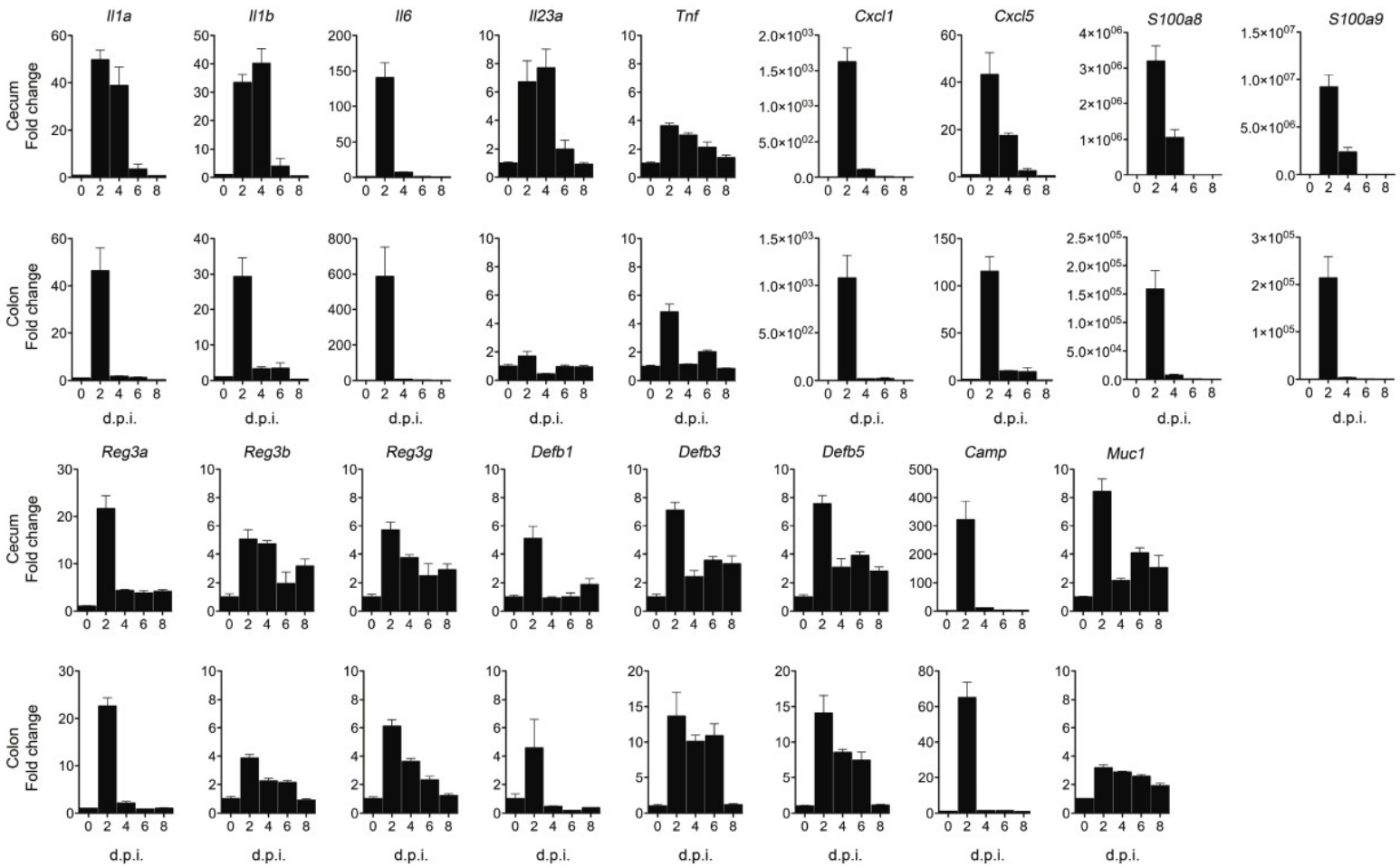

Figure S1: *C. difficile* results in rapid up-regulation of inflammatory and anti-microbial genes. Total cecum and colon tissues were harvested and analyzed for gene expression by qPCR following *C. difficile* ($5x10^5$ CFU; N=4-5 per time point). Normalized to day 0 sample with GAPDH as endogenous control.

Supplemental Figure 2

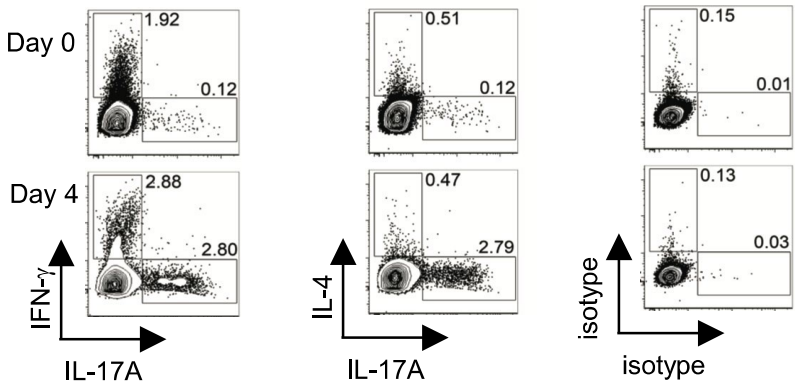

Figure S2: *C. difficile* leads to up-regulation of IL-17A-producing cells. Single-cell suspensions of total cecum tissue from naïve (day 0) and day 4-infected mice (5x105 CFU) were stimulated with PMA/ionomycin *in vitro* followed by intracellular staining and analyzed by flow cytometry. Plots shown are gated on live CD45+ cells (data representative of two experiments).

Supplemental Figure 3

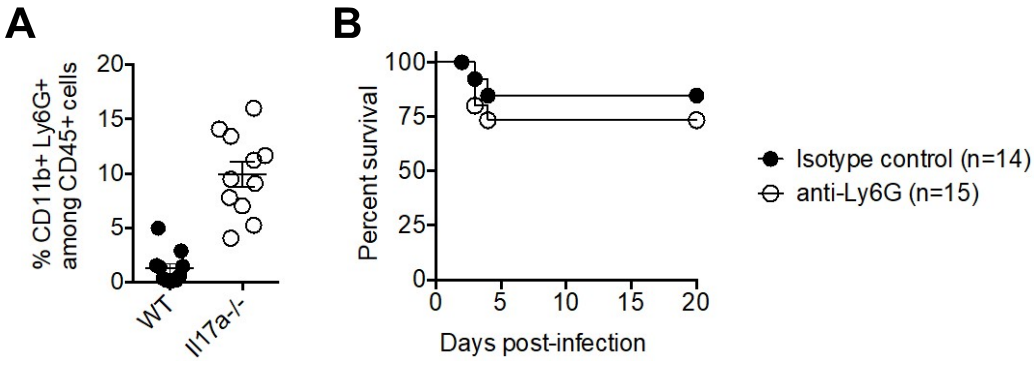

Figure S3: Neutrophil recruitment is not attenuated during *C. difficile* of IL-17A-deficient mice. (A) Neutrophil infiltration into intestine of WT and *Il17a-/-* following *C. difficile* ($4x10^5$ CFU). Gated on live CD45+ CD11b+ Ly6G+ cells (data combined from two experiments; N=11 per genotype). **(B)** Percent survival of WT mice treated with isotype control (2A3) and anti-Ly6G antibody (1A8) following *C. difficile* (4x105 CFU; not significant, log-rank test).

Supplemental Figure 4

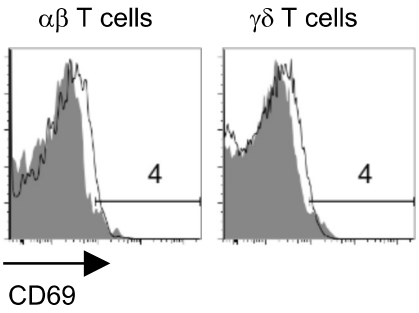

Figure S4: Alpha-beta T cells and gamma-delta T cells in uninfected mice do not express CD69 at baseline. Surface expression of CD69 in alpha-beta T cells and gamma-delta T cells in antibiotics-treated uninfected mice. Filled histograms represent isotype control staining. Gated on live CD45+ CD3ε+ CD4+ TCRβ+ cells or live CD45+ CD3ε+ TCRgamma-delta+ cells (results representative of two experiments).

Supplemental Figure 5

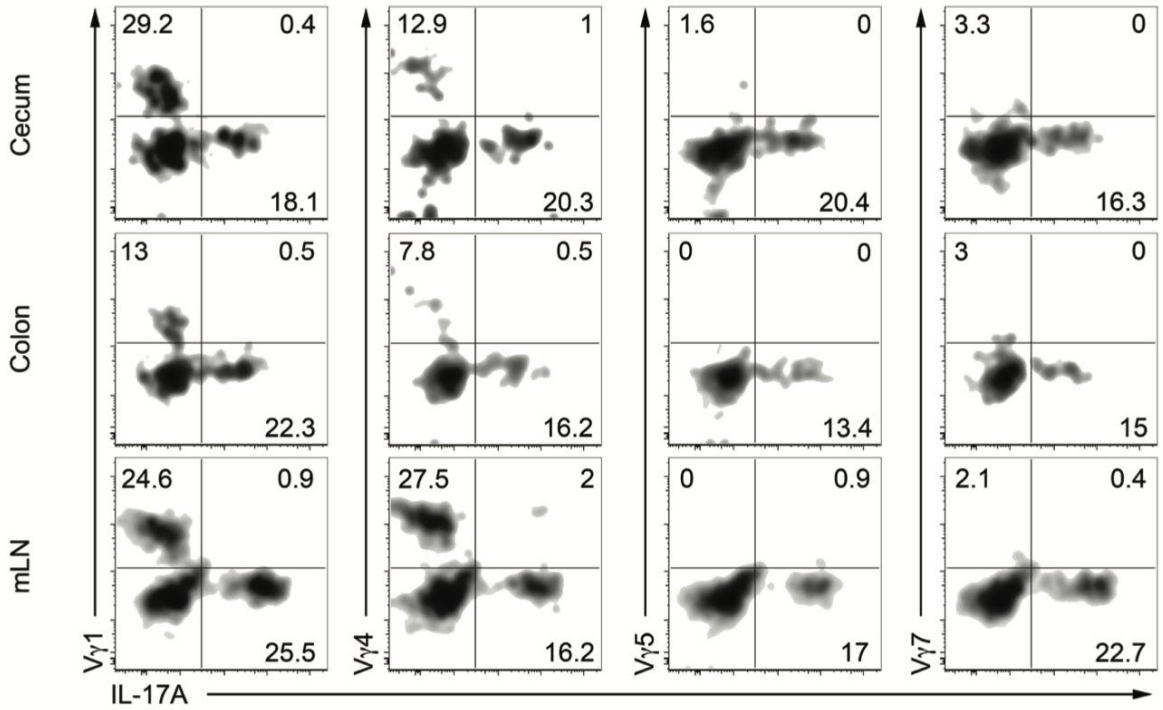

Figure S5: *C. difficile*-responsive IL-17A+ gamma-delta T cells do not express typical Vγ chains. Single-cell suspensions from tissues of day 4-infected mice ($4x10^5$ CFU) were stimulated with PMA/ionomycin *in vitro* followed by intracellular staining and analyzed by flow cytometry. Gated on live CD45+ CD3ε+ TCRgamma-delta+ cells. Y-axis labeled according to Tonegawa system (Vγ1 = *Trgv1*, Vγ4 = *Trgv4*, Vγ5 = *Trgv5*, and Vγ7 = *Trgv7*).

Supplemental Figure 6

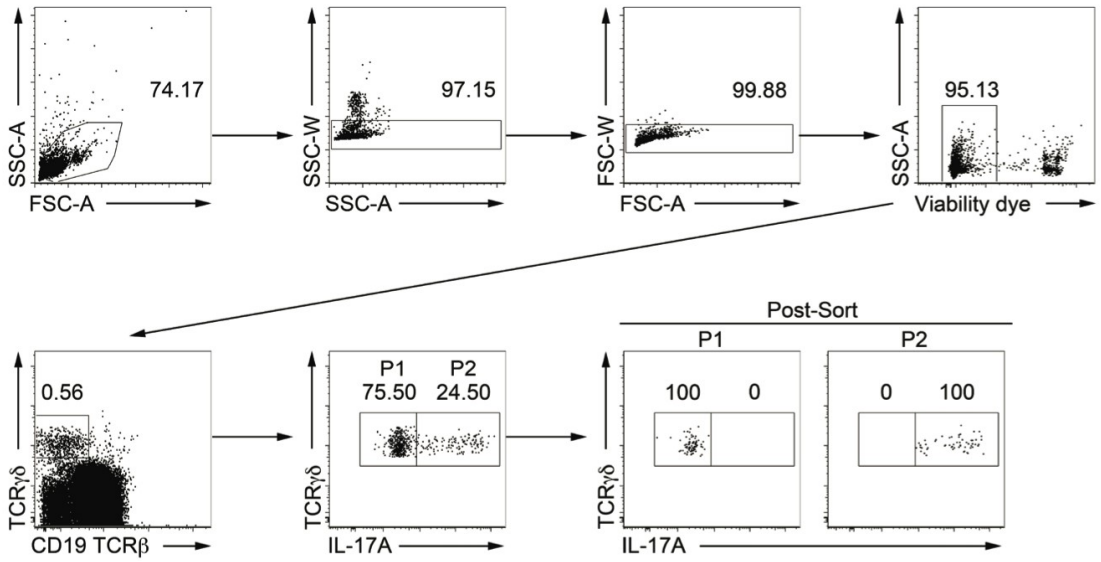

Figure S6: Gating strategy for the isolation of mLN IL-17A- and IL-17A+ gamma-deltaT-cells. Mesenteric lymph nodes were harvested from day 4-infected mice ($4x10^5$ CFU), stimulated with PMA/ionomycin *in vitro* and stained by surface cytokine capture.