Supporting Information

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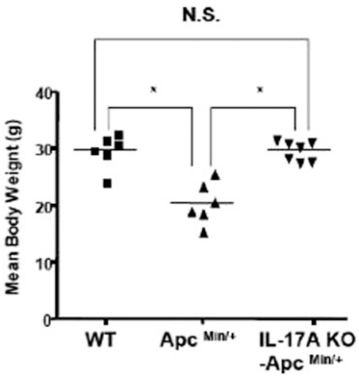


Fig. S1. Mean body weights of WT (C57BL/6) (n = 6), $Apc^{Min/+}$ (n = 6), and IL-17A KO- $Apc^{Min/+}$ (n = 7) mice were measured at week 20. *$\alpha < 0.05$; N.S., nonsignificant.

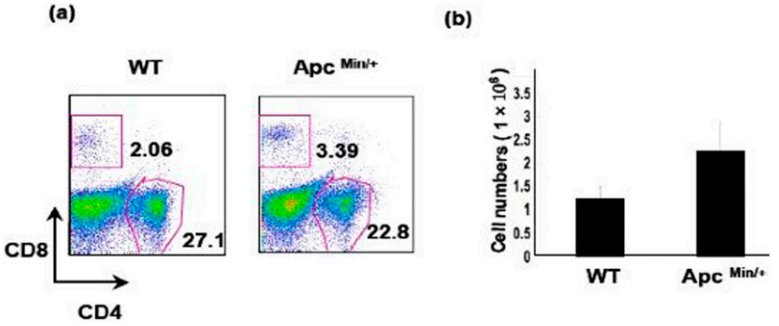


Fig. S2. CD4 and CD8 T cells in lamina propria are increased in $Apc^{Min/+}$ mice. (*A*) WT (n = 3) and $Apc^{Min/+}$ (n = 3) mice were killed at week 13 and lamina propria was prepared. Cells were stained with murine anti-CD4 and anti-CD8 antibodies and analyzed by flow cytometry. (*B*) Total number of lamina propria cells in WT and $Apc^{Min/+}$ mice.

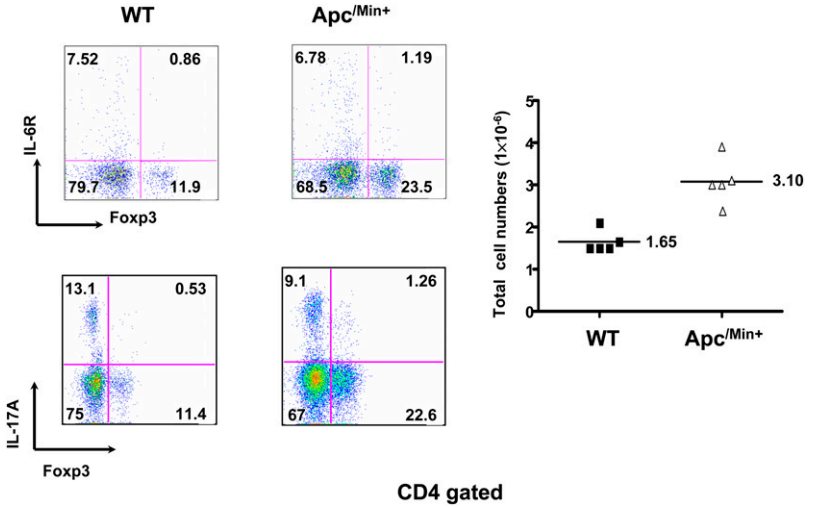
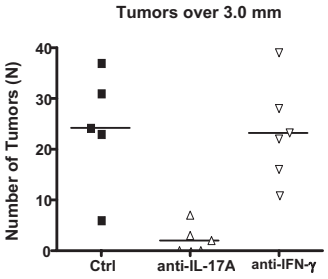


Fig. S3. IL-6R is not up-regulated to induce Th17 cells. Lamina propria lymphocytes from 16-week-old $Apc^{/Min+}$ mice and their littermate controls were prepared as described. Cells were counted and stained with anti-CD4, anti–IL-6Rα (CD126), anti-Foxp3, and anti–IL-17A. For measuring IL-6Rα and IL-17A, PMA/ionomycin was used to stimulate cells for 6 h. Brefeldin A and monensin A were used at 1:1,000 dilution and added to the culture for the last 4 h of culture. A representative of five mice per group is shown after CD4 gating. The total number of lamina propria lymphocytes are shown.



	Control	Anti-IL-17A	Anti-IFN-γ
Thymic Atrophy	4/4 (100%)	1/5 (20%)	4/5 (80%)
Splenomegaly	4/4 (100%)	2/5 (40%)	5/5 (100%)

Fig. S4. IL-17A mAb depletion significantly reduces intestinal tumorigenesis. Apc$^{/Min+}$ mice were treated weekly for 5 weeks with 150 μg of anti–IL-17A antibody per animal (n = 5). Anti–IFN-γ antibody was used weekly for 10 weeks with 400 μg per animal (n = 5). All mice were killed at week 16 and tumor numbers, splenomegaly, and thymic atrophy were quantitated.

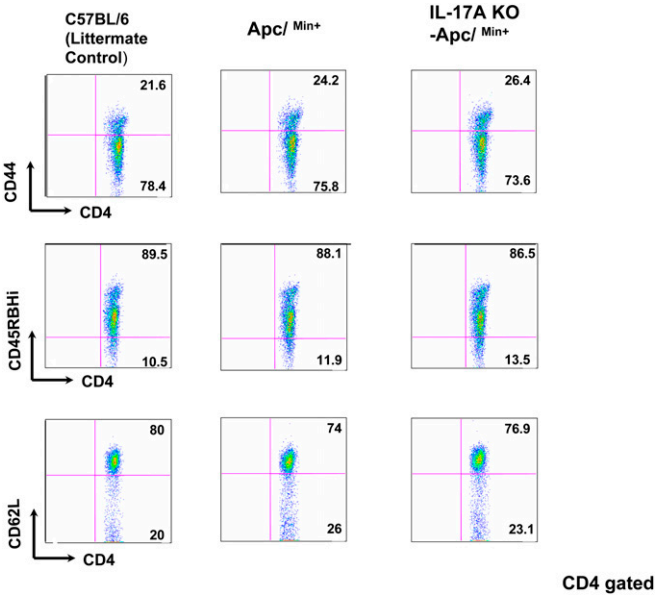


Fig. S5. CD4 T cell surface markers does not undergo significant changes. Splenocytes from 11- to 12-week-old Apc$^{/Min+}$ mice and their littermate control as well as IL-17A KO- Apc$^{/Min+}$ mice were prepared and stained with anti-CD44, anti-CD45RB^{hi}, and anti-CD62L antibodies. A representative of three mice per group is shown.

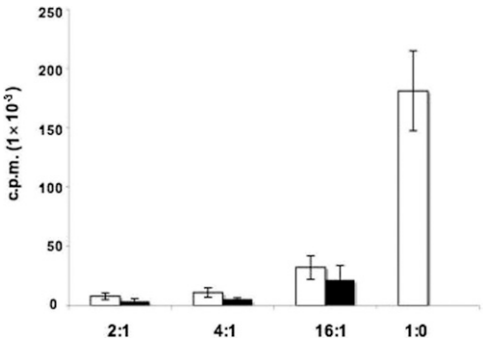


Fig. S6. Regulatory T cells from Apc$^{Min/+}$ mice are functional in vitro. CD4^{+}Foxp3- (i.e., effector CD4 T cells) were isolated from Foxp3-IRES-RFP mice. Regulatory T cells were isolated from Foxp3-IRES-RFP-Apc$^{Min/+}$ mice or their littermate control (WT) mice by cell sorting. WT effector CD4 T cells were increased in ratio as indicated and cocultured with WT regulatory T cells (white bar) or Apc$^{Min/+}$ regulatory T cells (black bar) in the presence of anti-CD3 and T cell–depleted irradiated splenocytes for 72 h. As a positive control, CD4^{+}Foxp3- T cells were stimulated without regulatory T cells.

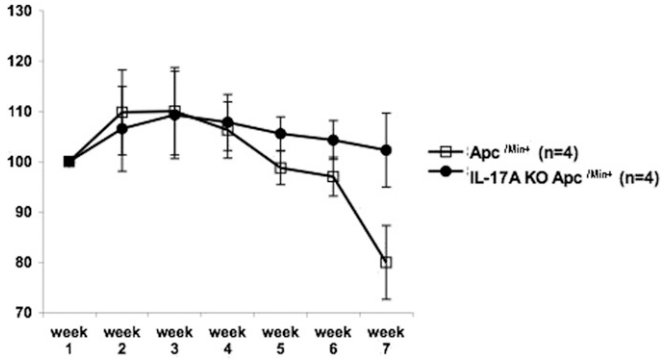


Fig. S7. CD4^{+}CD45RB^{low}CD25+ cells cannot maintain suppressive function in vivo. CD4^{+}CD45RB^{low}CD25+ cells (0.8× 10^{5}) were FACS-sorted from 11-week-old Apc$^{/Min+}$ mice and IL-17A KO- Apc$^{/Min+}$ mice. CD4^{+}CD45RB^{hi}CD25- T cells (4.0 × 10^{5}) from C57BL/6 mice were sorted and cotransferred to Rag2 KO mice. Mean body weight was monitored weekly.

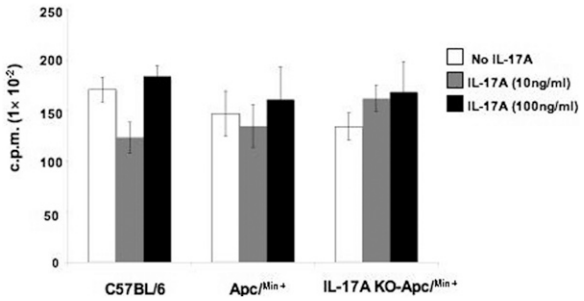


Fig. S8. IL-17A does not affect on Apc$^{/Min+}$ CD4 T cells and IL-17A KO-Apc$^{/Min+}$ CD4 T cells. CD4 T cells were prepared by sorting and stimulated with 1 μg/mL of anti-CD3 (145-2C11) and 1 × 10^{5} T cell–depleted and irradiated (2500 rads) splenocytes for 72 h. Ten or 100 ng/mL of IL-17A was added during the culture. Thymidine [H^{3}] was added for the last 10 h of culture.

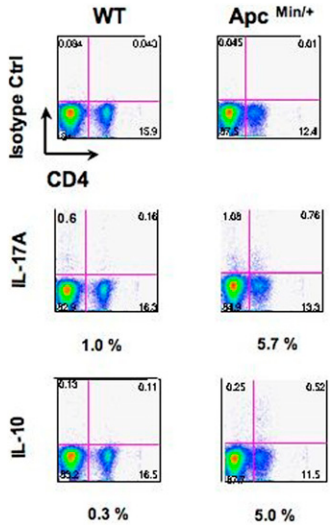


Fig. S9. Apc$^{Min/+}$ CD4 T cells are expressing more IL-10 and IL-17A in Peyer patches. Fourteen- to 15-week-old APC/Min mice and their littermate control mice were killed and Peyer patch cells were stimulated with PMA (100 ng/mL)/ionomycin (1 μM) for 6 h. Brefeldin A (1 μg/mL) was added to the culture for the last 4 h. Intracellular staining was performed with anti–IL-10, anti–IL-17A, and isotype control antibody. The percentage in the bottom of each flow cytometry panel shows the percentage of IL-10– or IL-17A–positive cells among gated CD4^{+} T cells. Representative of two independent experiments.