

Supplemental Data

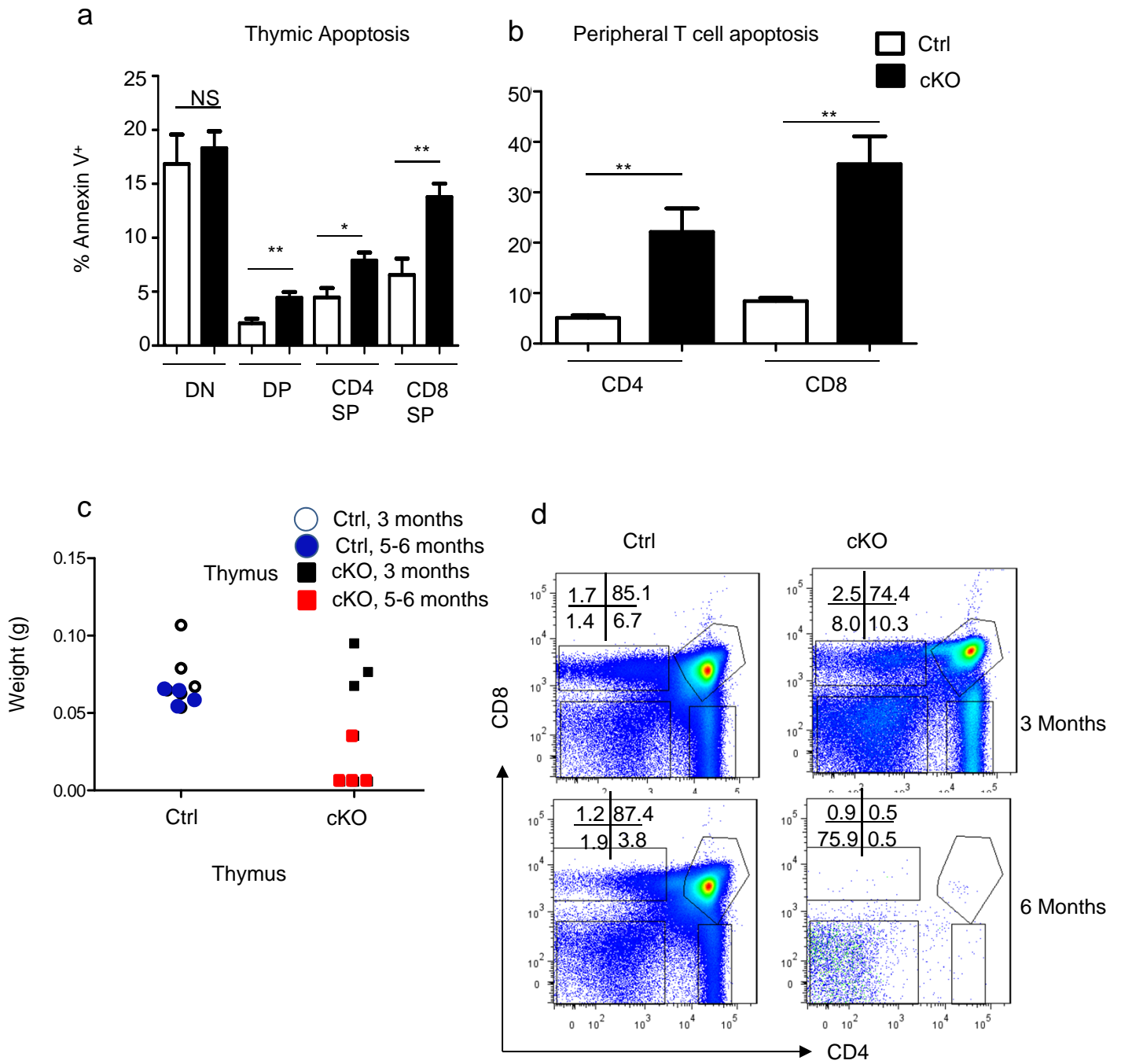


Fig. S1. (a and b) *Apc* deletion increases apoptosis in mature thymocytes, but apoptosis is less severe than that in peripheral T cells. Ctrl (open bars) and cKO (filled bars) thymocytes (a) and splenocytes (b) were stained with anti-CD4 and anti-CD8 mAbs in conjunction of Annexin V. The data shown was summarized from two independent experiments involving 6 mice at 6-8 weeks of age in each group. (c and d) Progressive loss of thymic cellularity in old cKO mice. c. Thymic weight of 3 or 6 month old control (open circles for three months old and filled blue circles for elder mice) or cKO (closed squares). In red, are cKO mice that are older than 3 months, while the black closed squares are mice that are 3 months old. n=7. d. Thymi of 3-6 month old control or cKO were stained with CD4 and CD8. Shown are representative profiles of two cKO mice sacrificed at 3 and 6 months, respectively. Both cKO mice have developed prolapses.

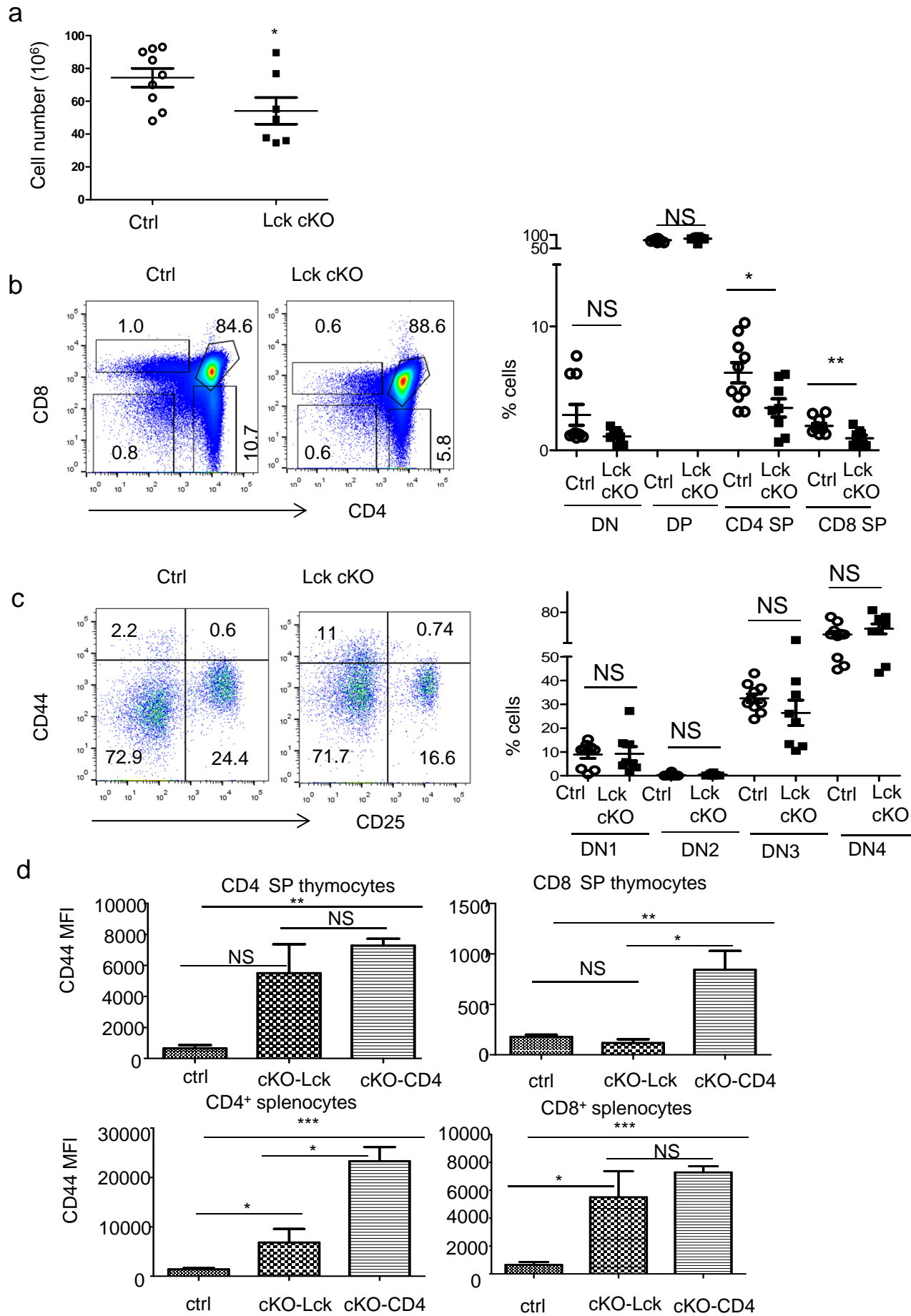


Fig. S2. Subtle thymocyte developmental defects caused by Lck-Cre-driven deletion of the Apc exon 14 in 6-8 week old mice. a. Thymic cellularity of *Apc^{f/f};Lck-Cre⁻* (Ctrl) and the *Apc^{f/f};Lck-Cre⁺* (Lck-cKO) mice. n=8. b. Thymocyte development based on distribution of CD4 and CD8 markers. Representative profiles are shown on the left, while summary data are presented on the right. n=9. c. Thymocyte development based on distribution of CD44 and CD25 markers among the CD4⁻CD8⁻ thymocytes. Representative profiles are shown on the left, while summarized data is presented on the right. n=9. Note that the overall levels of CD44 are elevated among the DN4 subsets in the Lck cKO thymocytes. This is to be expected, as CD44 is a hallmark of Wnt signaling target gene. d. Summarized MFI expression, from one experiment, of CD44 in SP thymocytes and splenic T cells in Lck-cKO and CD4-cKO. n=3. This experiment was repeated twice.

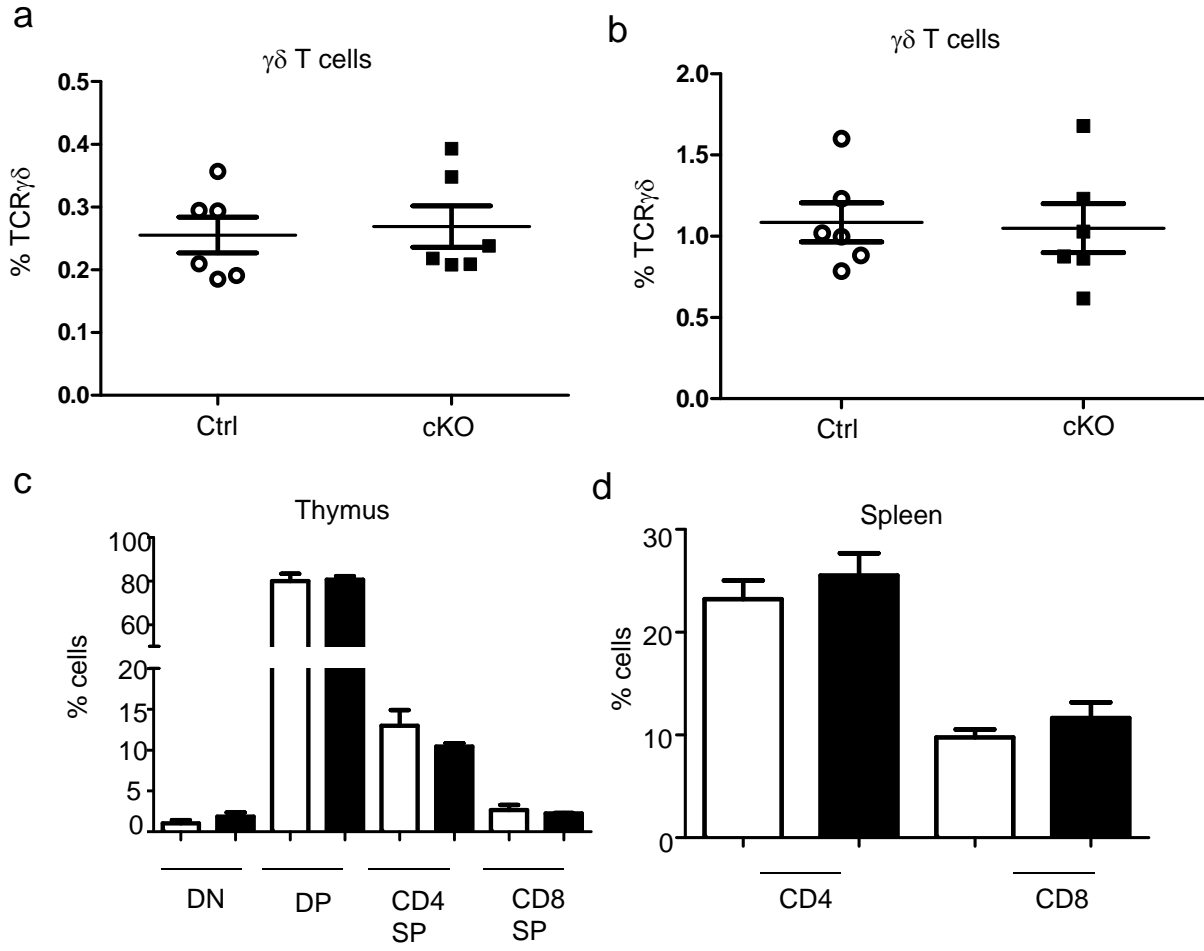


Fig. S3. (a and b) *Apc* deletion by *CD4-Cre* does not cause alteration in $\gamma\delta$ T cells lineages. Ctrl (open circles) and cKO (filled squares) thymocytes (a) and splenocytes (b) were stained with anti-TCR β and anti-TCR $\gamma\delta$ complex mAbs. The data is shown as the mean \pm SEM of % $\gamma\delta$ T cells, summarized from two independent experiments involving 6 mice at 6-8 weeks of ages in each group. (c and d) In mixed bone marrow chimeras, *Apc* deletion by *CD4-Cre* in donor-type T cells does not affect the development and survival of recipient-type T cells. c. % WT CD45.1⁺ recipient-type cells developed in the presence of either Ctrl (open bars) or cKO (filled bars) donor-type (CD45.2⁺) cells. d. As in c, except spleen cells were analyzed. The data is shown as the mean \pm SEM, summarized from 3 independent experiments, n=10.

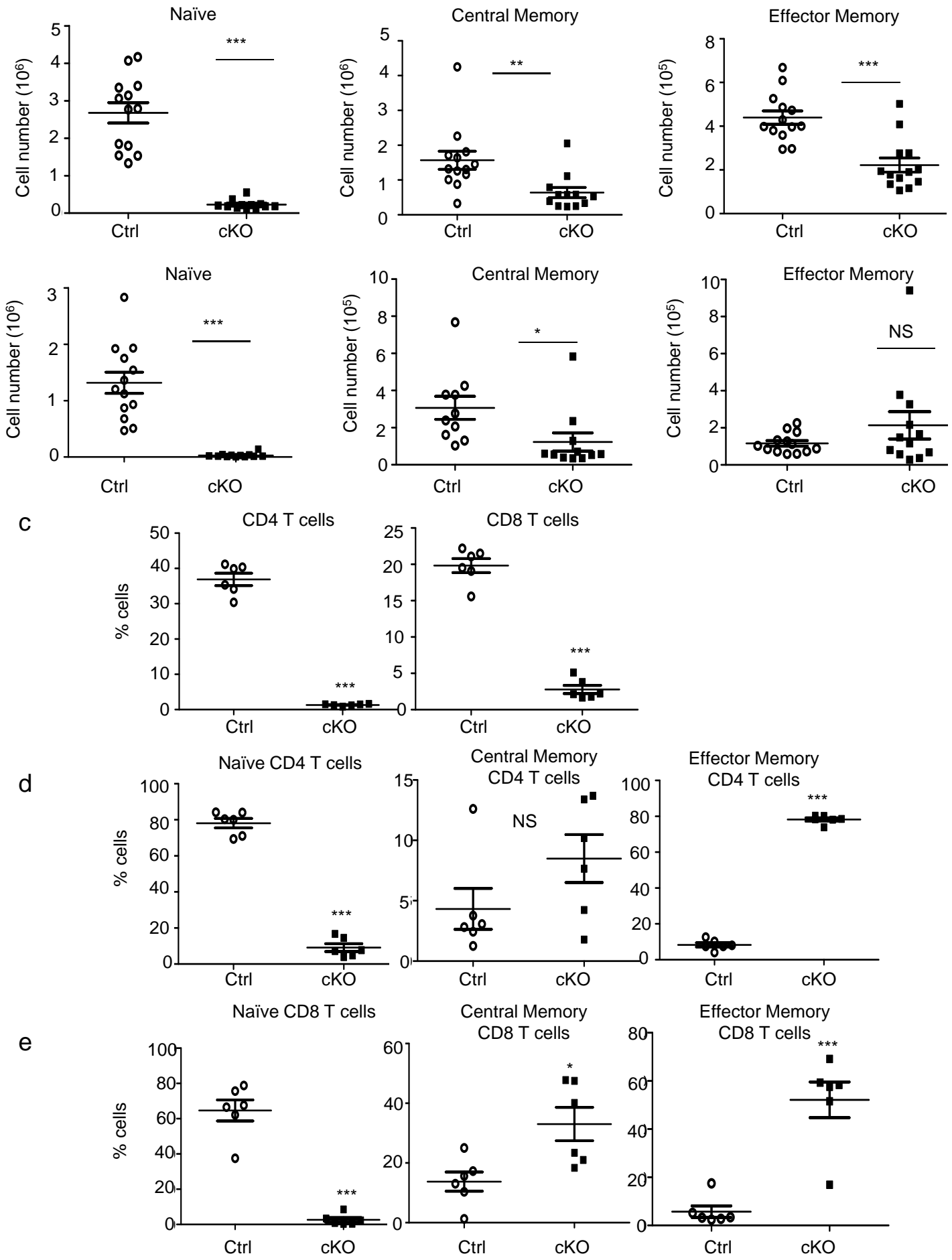


Fig. S4. (a and b) *Apc* deletion by *CD4-Cre* reduces T cell cellularity in the spleen. a. Numbers of naïve, central memory, and effector memory CD4 T cells from the spleen in 6-8 week old mice, n=12. b. Numbers of naïve, central memory, and effector memory CD8 T cells from the spleen in 6-8 week old mice. n=12. (c to e) *Apc* deletion by *CD4-Cre* reduces T cell % in the lymph nodes. c. Reduction of % of CD4 and CD8 T cells. d. Reduced naïve CD4 T cells but increased central (CD44^{hi}CD62^{hi}) and effector (CD44^{hi}CD62^{lo}) memory CD4 T cells. e. Reduced naïve CD8 T cells but increased central (CD44^{hi}CD62^{hi}) and effector (CD44^{hi}CD62^{lo}) memory CD8 T cells. The data shown is summarized from two independent experiments, each involving 6 mice of 6-8 week old.