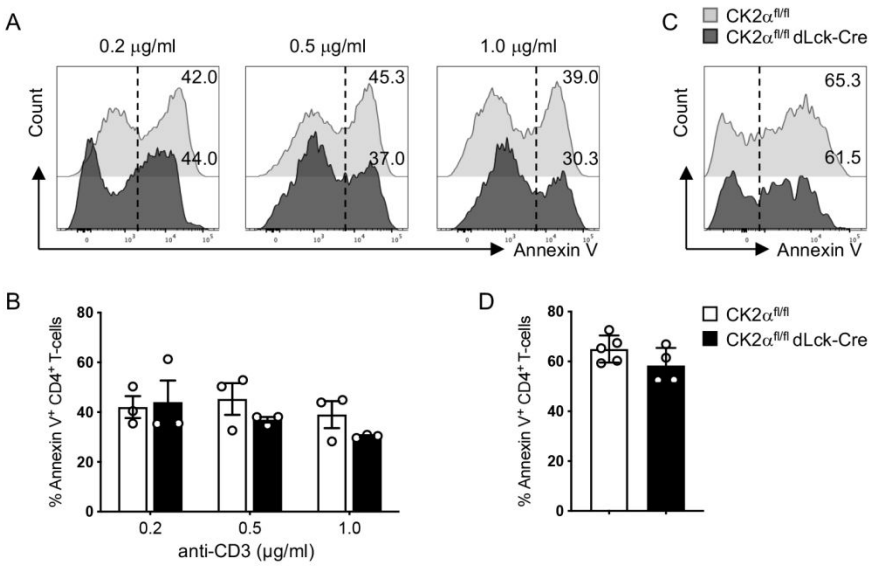
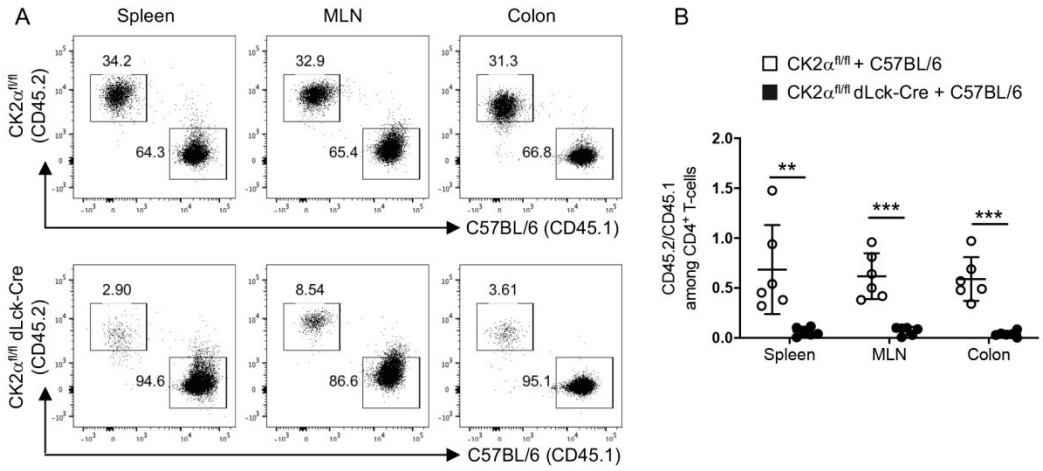
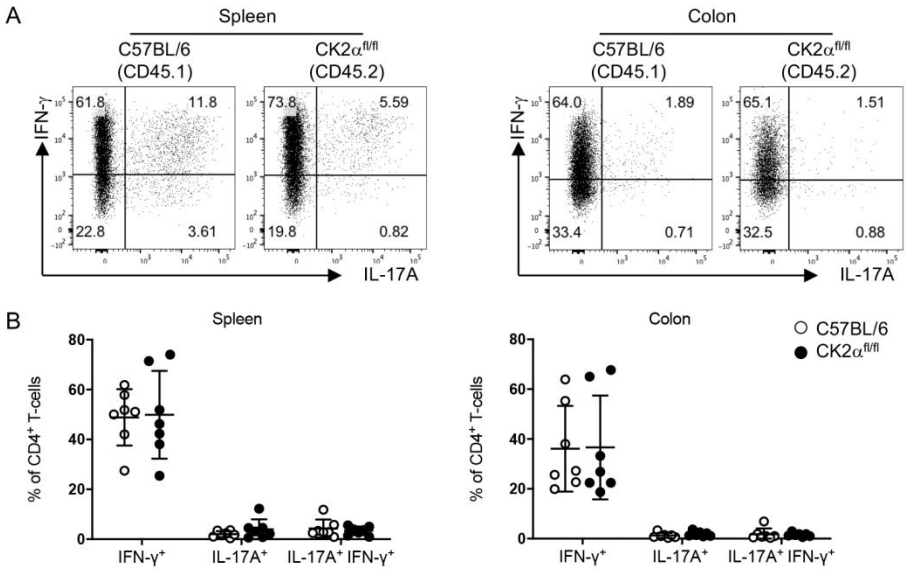


Supplemental Figure 1. CK2α Expression is not Required for CD4$^+$ T-cell Survival *In Vitro and In Vivo*. (A) Naïve CD4$^+$ T-cells were activated with the indicated concentrations of anti-CD3 (0.2 μg/ml, 0.5 μg/ml, 1.0 μg/ml) and 1.0 μg/ml of anti-CD28 Abs for 72 h, and dead and apoptotic cells were assessed by Annexin V staining. Representative line graphs are shown. **(B)** Percentage of Annexin V$^+$ CD4$^+$ T-cells is shown (n = 3). **(C)** Naïve CD4$^+$ T-cells from CK2α$^{fl/fl}$ or CK2α$^{fl/fl}$ dLck-Cre mice were transferred into Rag1$^{-/-}$ mice by i.v. injection. Mice were sacrificed 5 days later, and dead and apoptotic CD4$^+$ T-cells from the spleen were assessed by Annexin V staining. Representative line graphs are shown. **(D)** Percentage of Annexin V$^+$ CD4$^+$ T-cells is shown. CK2α$^{fl/fl}$, n=5; CK2α$^{fl/fl}$dLck-Cre, n=4.



Supplemental Figure 2. CK2α Controls T-cell Accumulation in the Spleen and Colon though a Cell-intrinsic Mechanism. Naïve $CD4^+$ T-cells from $CK2\alpha^{fl/fl}$ mice ($CD45.2^+$) or $CK2\alpha^{fl/fl}$ dLck-Cre mice ($CD45.2^+$) were co-transferred with naïve $CD4^+$ T-cells from C57BL/6 mice ($CD45.1^+$) at a ratio of 1:1 (5×10^5: 5×10^5) into $Rag1^{-/-}$ mice by i.v. injection. Recipients were sacrificed at 4 weeks after transfer, and the percentage of C57BL/6 $CD4^+$ T-cells ($CD45.1^+$) and CK2α intact or deficient $CD4^+$ T-cells ($CD45.2^+$) in the spleen, mesenteric lymph node (MLN) and colon were detected by flow cytometry. **(A)** Representative flow cytometry profile of $CD4^+$ T-cells recovered from the indicated sites. **(B)** Ratio of CD45.2/CD45.1 $CD4^+$ T-cells in spleen, MLN and colon. Data represent pooled results from three independent experiments. $CK2\alpha^{fl/fl}$, n=8; $CK2\alpha^{fl/fl}$dLck-Cre, n=8. Bars represent the mean ± SD. *** $p<0.001$.



Supplemental Figure 3. CD4$^+$ T-cells from CK2α$^{fl/fl}$ and C57BL/6 Mice Have Similar Cytokine Profiles. Naïve CD4$^+$ T-cells from CK2α$^{fl/fl}$ mice (CD45.2$^+$) were co-transferred with naïve CD4$^+$ T-cells from C57BL/6 mice (CD45.1$^+$) at a ratio of 1:1 (5 x 10^5: 5 x 10^5) into Rag1$^{-/-}$ mice by i.v. injections. Recipients were sacrificed 2 weeks after transfer, and cytokine production by C57BL/6 CD4$^+$ T-cells (CD45.1$^+$) or CK2α intact CD4$^+$ T-cells (CD45.2$^+$) in the spleen or colon was detected by flow cytometry. **(A)** Representative flow cytometry profiles of IFN-γ and IL-17A production by CD4$^+$ T-cells derived from C57BL/6 or CK2α$^{fl/fl}$ mice in the spleen or colon. **(B)** Frequencies of IFN-γ$^+$, IL-17A$^+$ and IL-17A$^+$ IFN-γ$^+$ CD4$^+$ T-cells derived from C57BL/6 or CK2α$^{fl/fl}$ mice in the spleen or colon are shown.