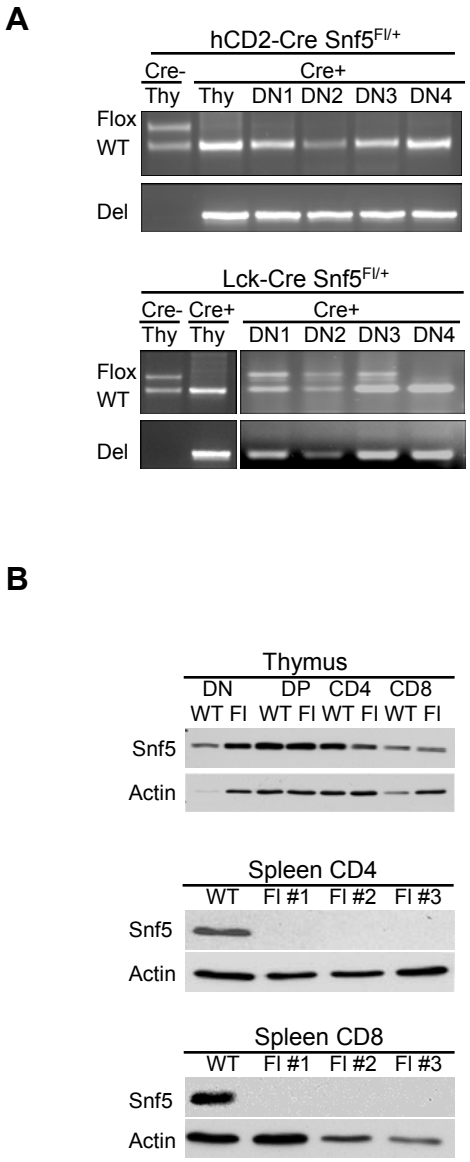
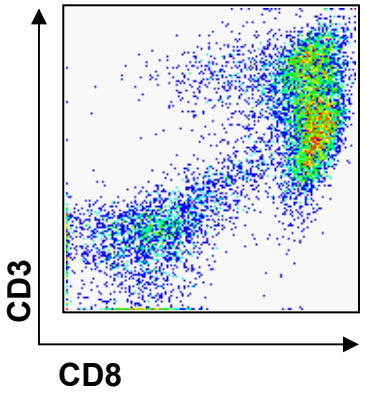
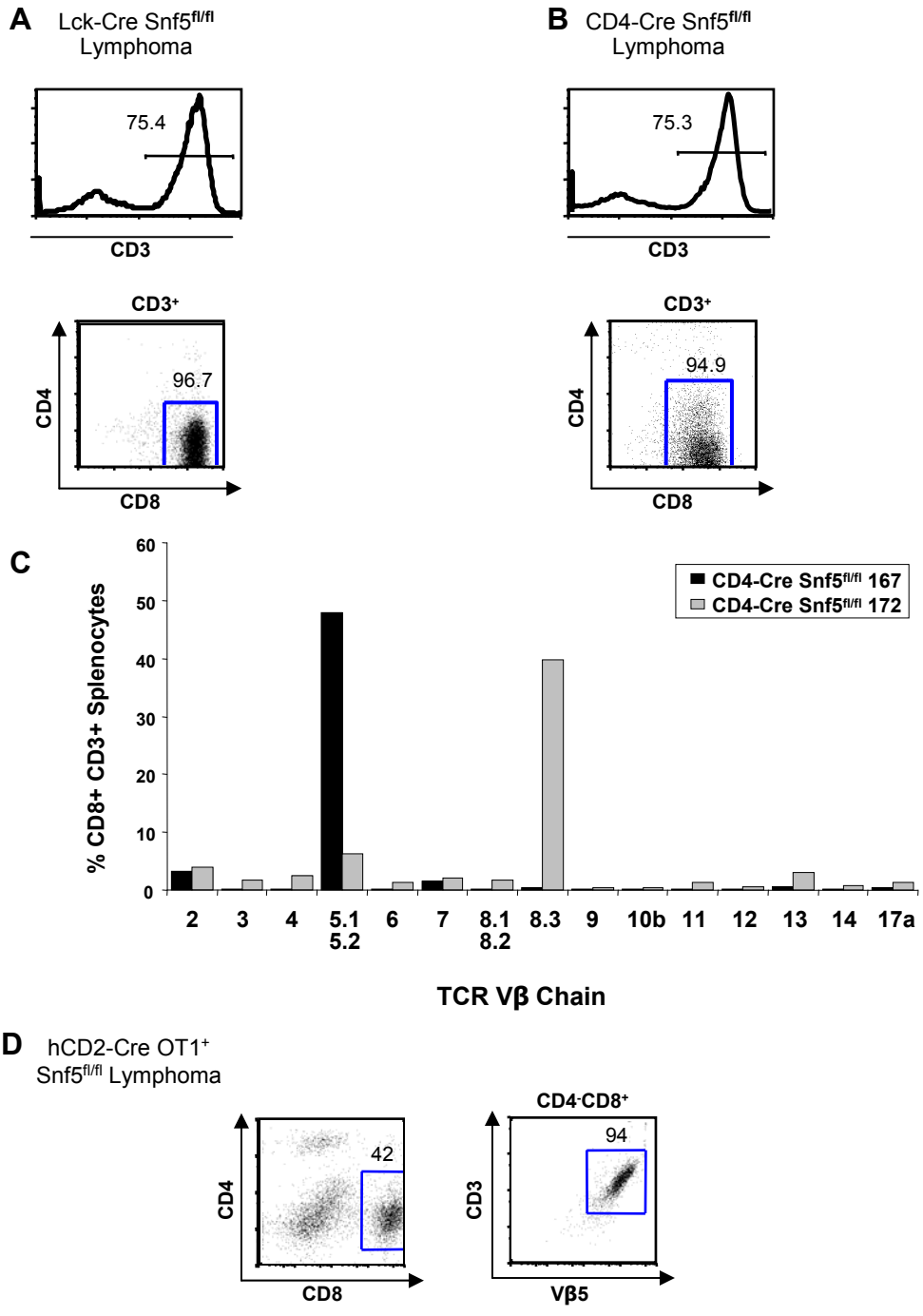


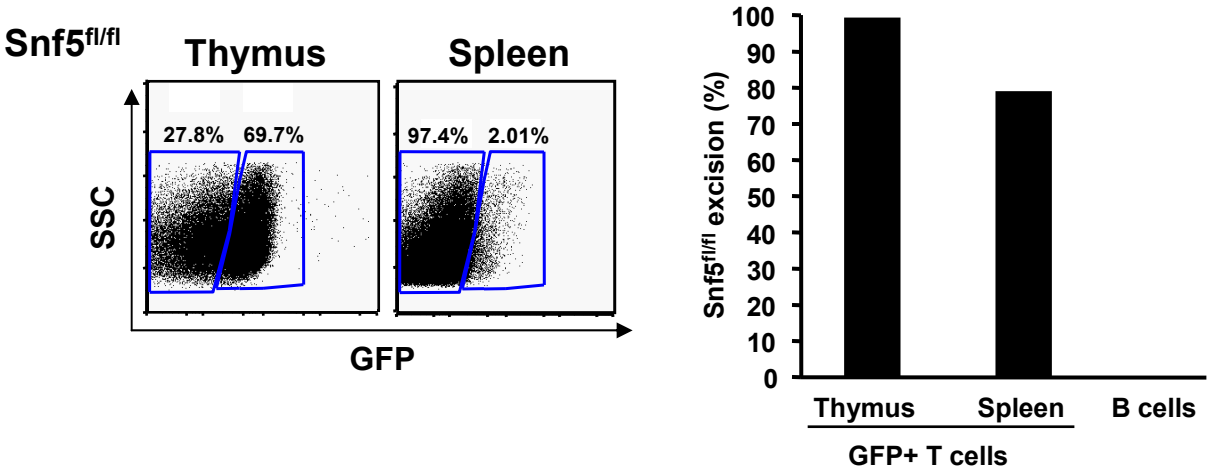
Supplementary Figure 1. Snf5-deletion Induced by transgenic Cre . (A) PCR analysis of Snf5 deletion in total thymocytes or sorted DN1, DN2, DN3, or DN4 populations isolated from Lck-Cre or CD2-Cre mice. $Snf5^{fl/+}$ cells were used to avoid the developmental block and selection bias caused by Snf5-deficiency. PCR primers detect the wild-type (WT), undeleted conditional (Flox), and deleted conditional (Del) alleles. (**B)** Thymocytes or splenic T cells from 4-6 week old CD4-Cre $Snf5^{+/+}$ (WT) or CD4-Cre $Snf5^{fl/fl}$ mice (Fl) were sorted according to CD4 vs. CD8 surface expression and immunoblotting for Snf5 and Actin was performed.



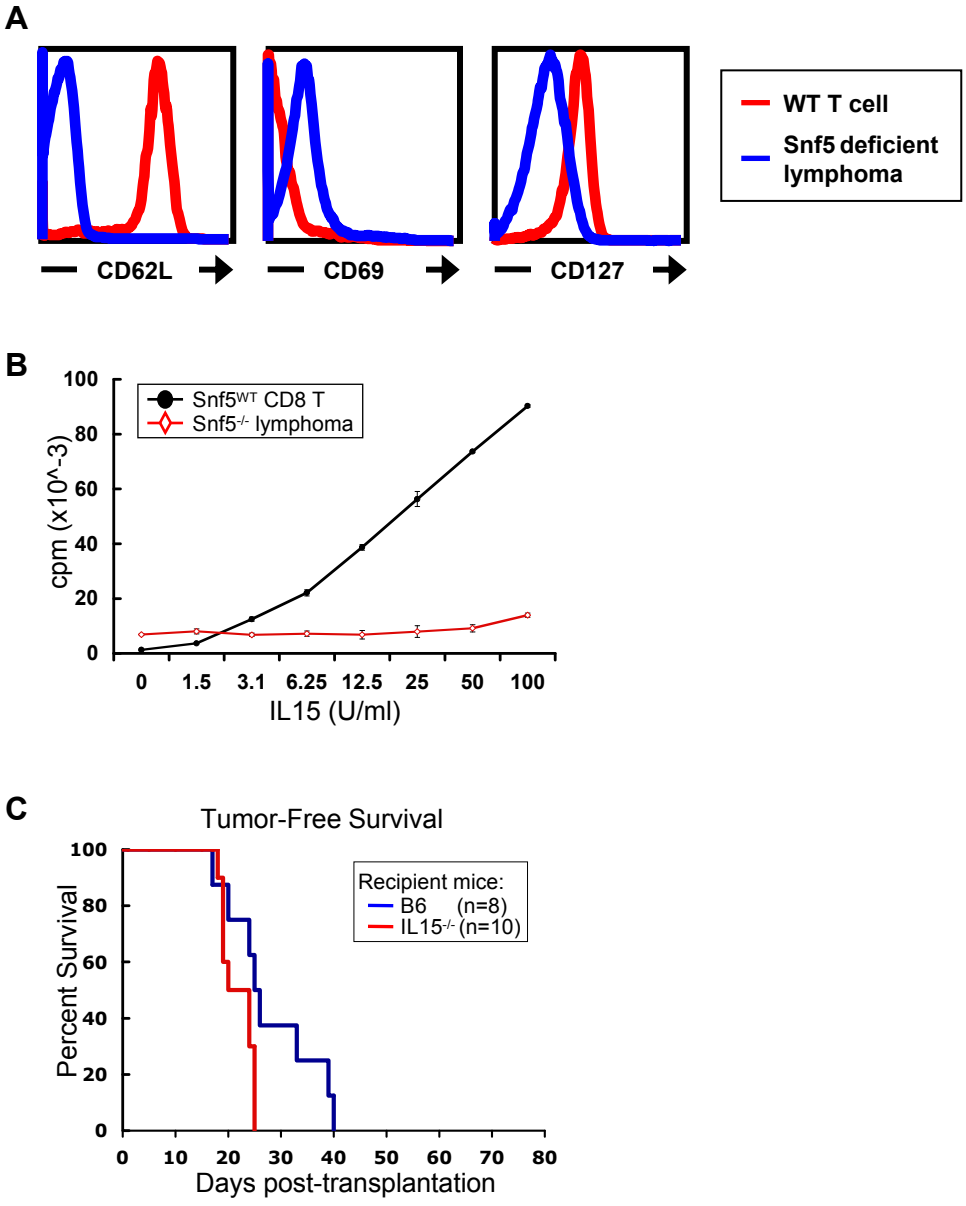
Supplementary Figure 2. Representative FACS analysis of CD3 and CD8 surface expression by splenocytes from tumor-bearing Lck-Cre Snf5fl/fl mice.



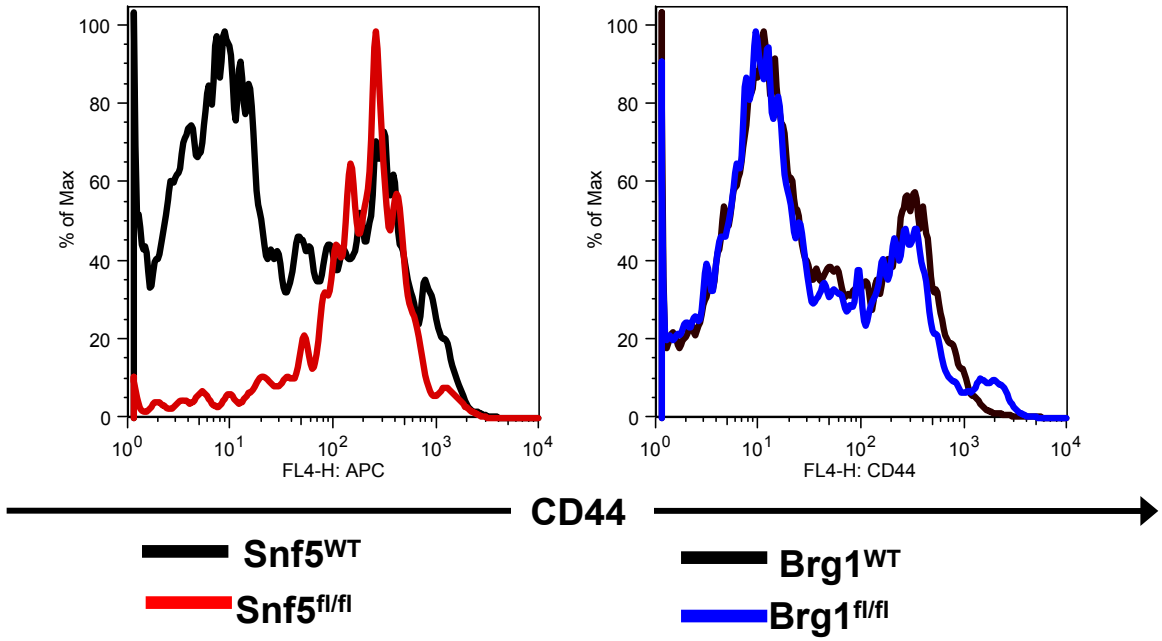
Supplementary Figure 3. Snf5-deficient lymphomas are mono- or oligo-clonal. (A, B, D) Representative FACS analysis of CD3, CD4 and CD8 (A and B) or CD3, CD4, CD8 and Vβ5 (D) surface expression by $Snf5^{-/-}$ lymphomas from Lck-Cre (A), CD4-Cre (B) or hCD2-Cre OT1 (D) $Snf5^{fl/fl}$ mice. **(C)** Splenocytes from two tumor-bearing CD4-Cre $Snf5^{fl/fl}$ mice were stained with antibodies against CD3, CD8 and a panel of anti-Vβ antibodies, and analyzed by flow cytometry. The graph depicts the percentage of cells expressing the indicated Vβ chain within $CD3^+CD8^+$ population from the two different tumors. Clonality was also demonstrated by Southern blot and PCR analysis (not shown).



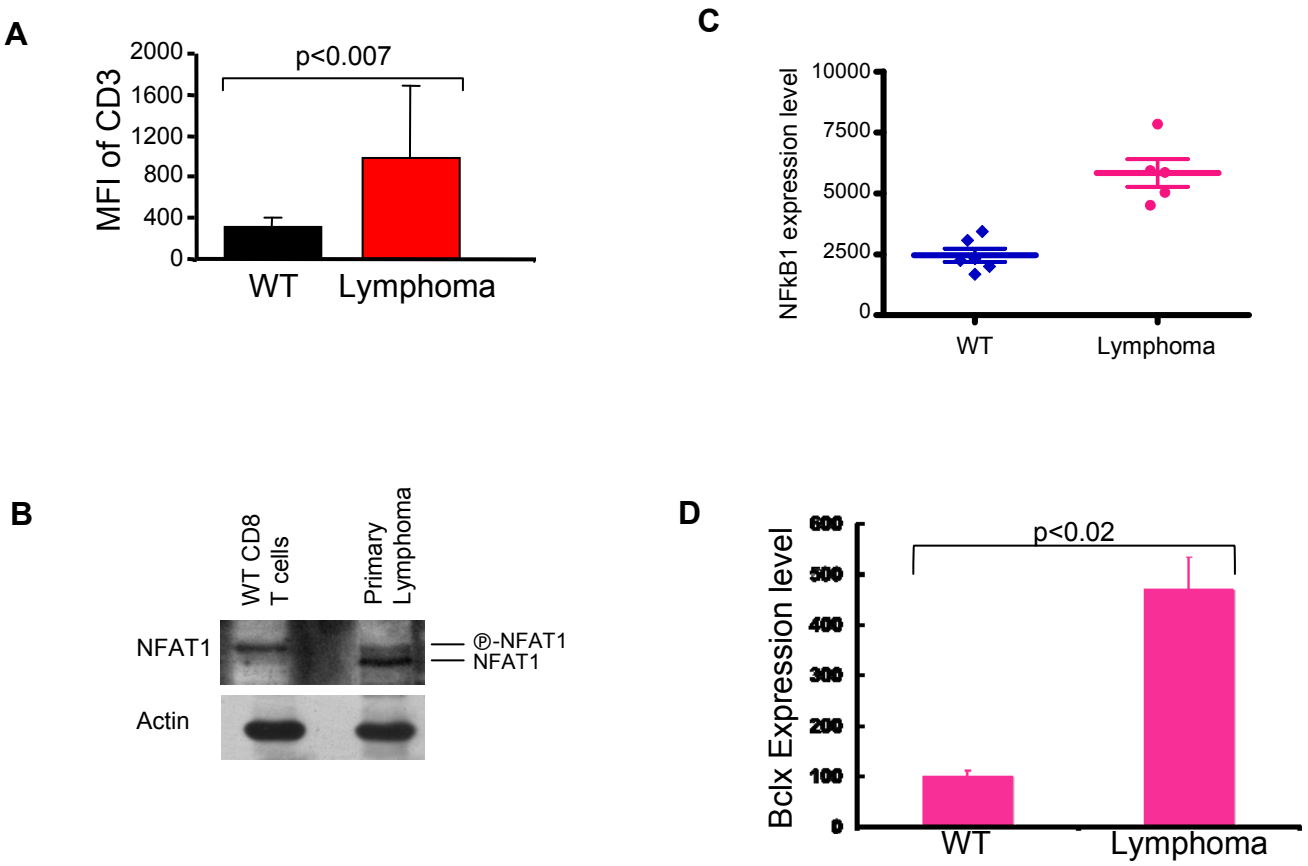
Supplementary Figure 4. GFP expression identifies Snf5 deleted cells in GFP reporter mice. GFP$^+$ T cells were sorted from the thymus or spleen of Lck-Cre Snf5$^{fl/fl}$ ROSA26 GFP reporter mice (n=3) and deletion of the Snf5 allele quantified by quantitative real-time PCR. The deleted allele was undetectable in control B cells (CD3$^-$B220$^+$) from the same mice.



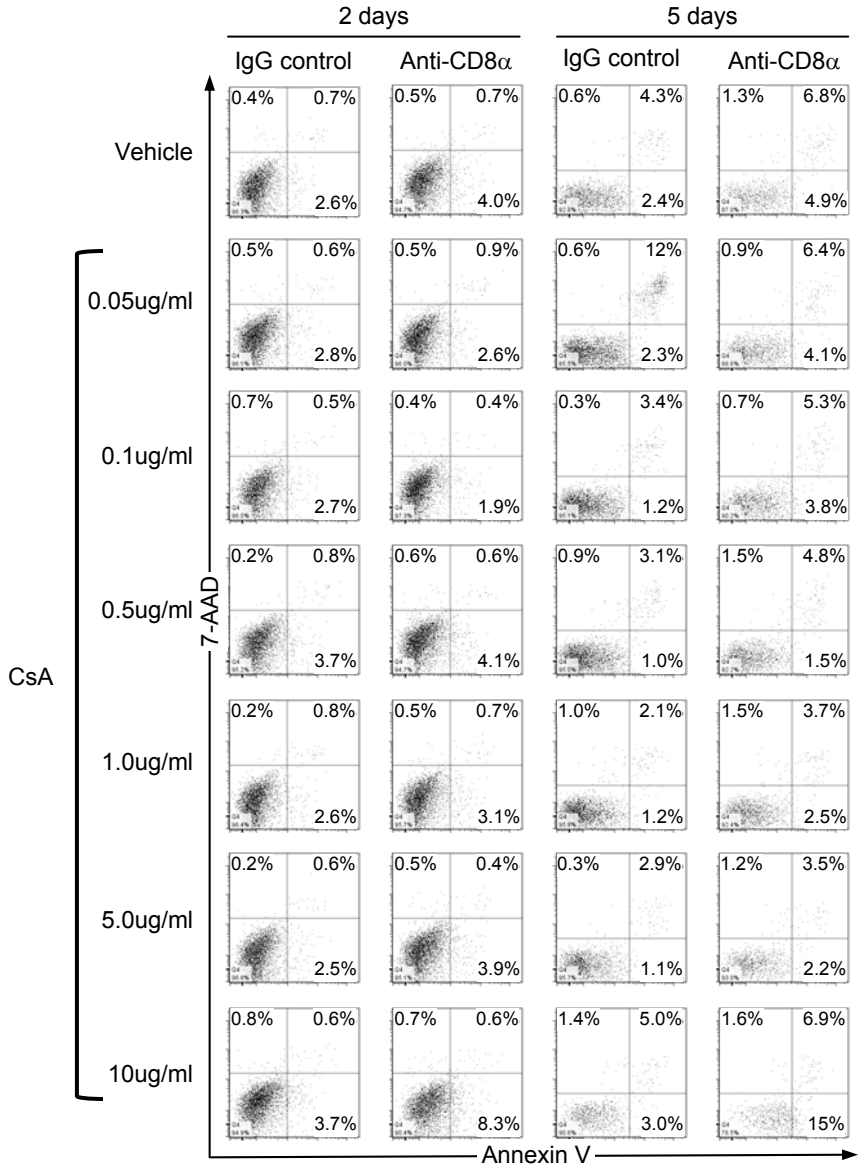
Supplementary Figure 5. Snf5-deficient lymphomas maintain memory cell identity of CD44^{hi}CD122^{lo} subset of memory cells and are IL-15 independent. (A) Representative FACS analysis of CD62L (top), CD69 (middle) and CD127/IL-7Rα (bottom) surface expression by Snf5$^{-/-}$ lymphomas from Lck-Cre. Cells were gated on the CD3^{+}CD8^{+} population. WT T cells are shown in red and Snf5$^{-/-}$ lymphomas in blue. **(B)** CD8-enriched cells from Lck-Cre Snf5^{WT} or tumor-bearing Lck-Cre Snf5$^{fl/fl}$ mice were stimulated for 60h in vitro with increasing concentrations of IL-15. Proliferation was measured by ^{3}H-Thymine incorporation and is shown as mean ± SD of triplicate wells. **(C)** Tumor-free survival curve of sub-lethally irradiated B6 or IL-15$^{-/-}$ mice after intravenous transfer of 10^{6} CD8-enriched cells from tumor-bearing Lck-Cre Snf5$^{fl/fl}$ mice.



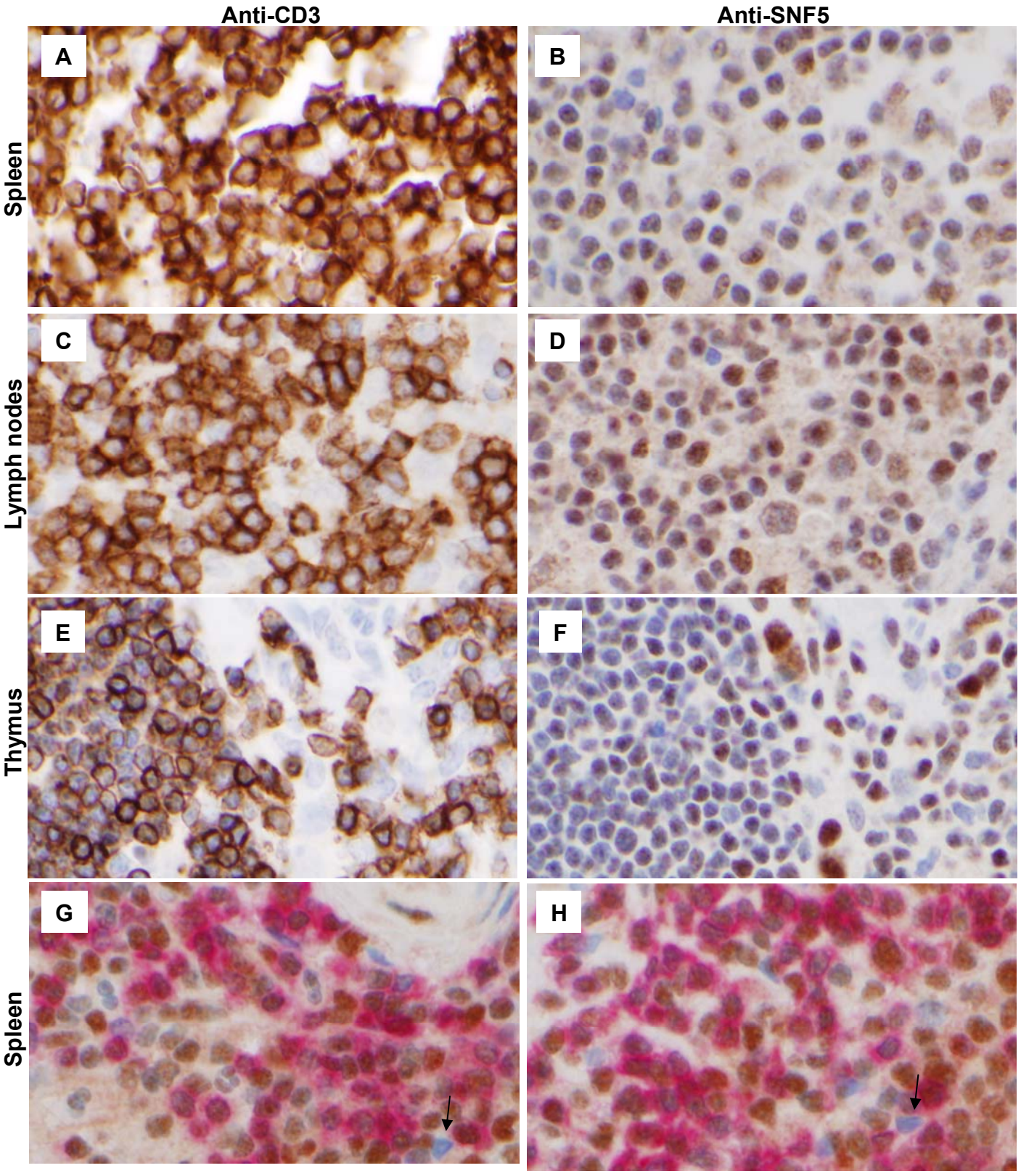
Supplementary Figure 6. Inactivation of Snf5, but not Brg1, leads to enrichment of CD44^{hi} population of CD8^{+} T cells. Representative FACS analysis of CD44 surface expression by pre-lymphoma CD3^{+}CD8^{+} splenocytes from Lck-Cre Snf5$^{+/+}$ or Snf5$^{fl/fl}$ (left) and CD4-Cre Brg1$^{+/+}$ or Brg1$^{fl/fl}$ (right) mice. WT T cells are shown in black, Snf5$^{fl/fl}$ T cells in red and Brg1$^{fl/fl}$ in blue.



Supplementary Figure 7. Lymphoma cells display increased expression of CD3 and activation of TCR signaling. (A) Median fluorescence intensity of CD3 in WT $CD8^+$ T cells and $Snf5^{-/-}$ lymphomas. **(B)** WT $CD8^+$ T cells and Snf5 deficient lymphomas were purified and immunoblotting for NFAT1 was performed. Actin was used as a loading control. **(C)** Relative expression of NFkB1 by sorted WT and $Snf5^{-/-}$ lymphoma $CD8^+$ cells determined by array-based gene expression analysis. **(D)** Real-time RTPCR revealed that Bclx was upregulated in Snf5 deficient lymphomas.

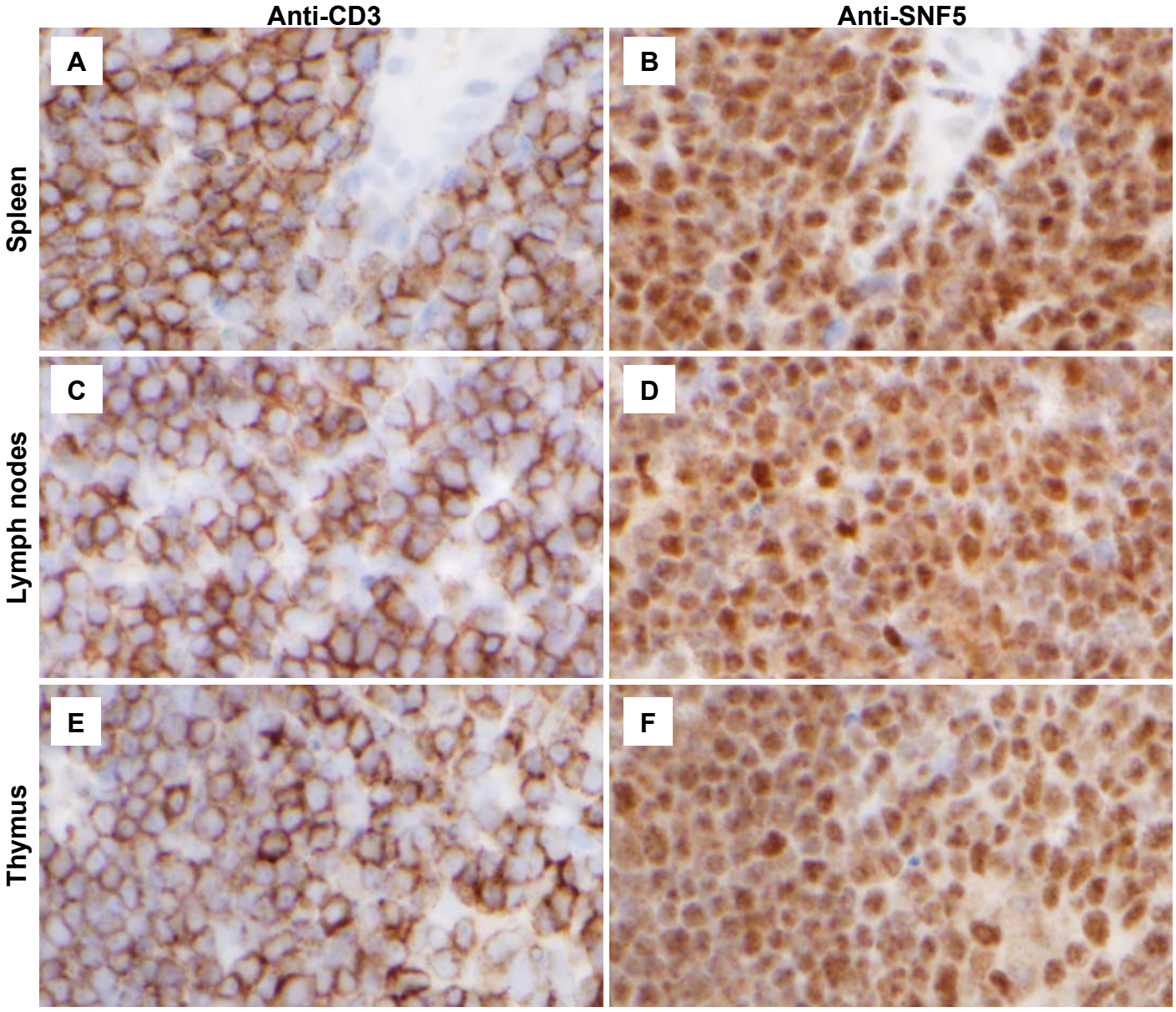


Supplementary Figure 8. Reduced thymidine uptake following TCR blockade is not a result of cell death. The Snf5-deficient lymphoma cell line was cultured for two days or five days in the presence of 1ug/ml of anti-CD8alpha or isotype control, and in the presence or absence of increasing concentrations of Cyclosporin A. Cell death was measured via flow cytometry by staining with 7-AAD and Annexin V.



(Please refer to the next page for figure legends)

Supplemental Figure 9: SNF5 expression does not vary substantially within normal peripheral T cells in human. Immunohistochemical staining with anti-CD3 was used to identify a T cell predominant area of normal human spleen (A). The brown staining marks surface expression of CD3 on T cells. The same area is shown stained with anti-SNF5 (B), where the brown color indicates nuclear expression of SNF5. Staining with anti-CD3 was used to identify a T cell predominant area of human lymph node (C). The same area is shown stained with anti-SNF5 (D). Staining with anti-CD3 was performed on human thymus (E). Immature thymocytes are present in the cortex on the left side of the image while more mature thymocytes are present in the medulla to the right. The same thymus area is shown stained with anti-SNF5 (F). Note that in all panels the cells with large nuclei that stain most strongly for SNF5 are not T cells. They are stromal cells and cells derived from the macrophage/monocyte lineage which are CD3 negative. As approximately 1% of cells were negative for SNF5 staining, simultaneous co-staining with CD3 (pink) and SNF5 (brown) was performed (G and H). The rare cells negative for SNF5 are also CD3 negative (indicated by arrows), and therefore not T cells.



Supplemental Figure 10: Snf5 expression does not vary substantially within normal peripheral T cells in mice. Immunohistochemical staining with anti-CD3 was used to identify a T cell predominant area of normal mouse spleen (A). The brown staining marks surface expression of CD3 on T cells. The same area is shown stained with anti-Snf5 (B), where the brown color indicates nuclear expression of Snf5. Staining with anti-CD3 was used to identify a T cell predominant area of mouse lymph node (C). The same area is shown stained with anti-Snf5 (D). Staining with anti-CD3 was performed on mouse thymus (E). Immature thymocytes are present in the cortex on the left side of the image while more mature thymocytes are present in the medulla to the right. The same thymus area is shown stained with anti-Snf5 (F).