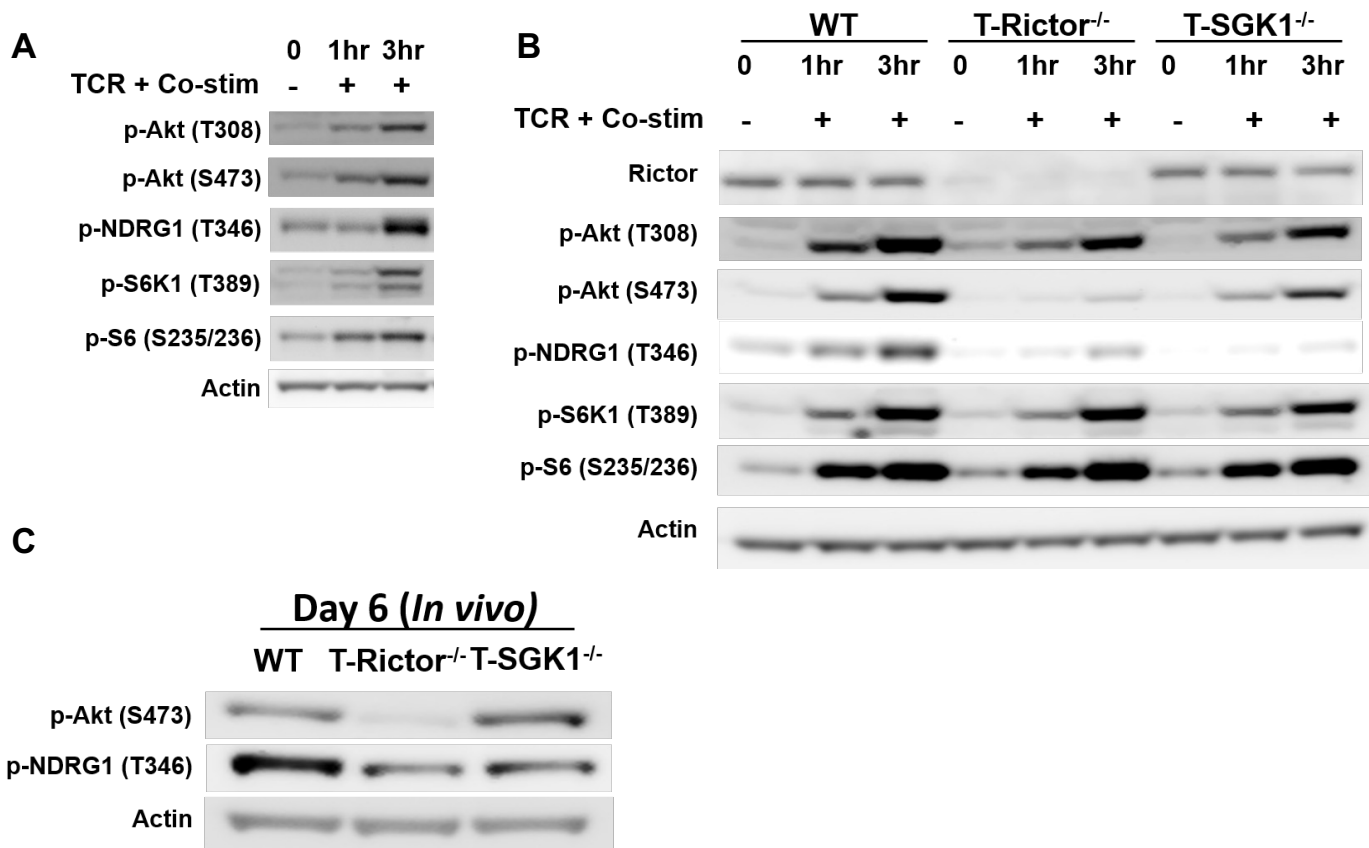


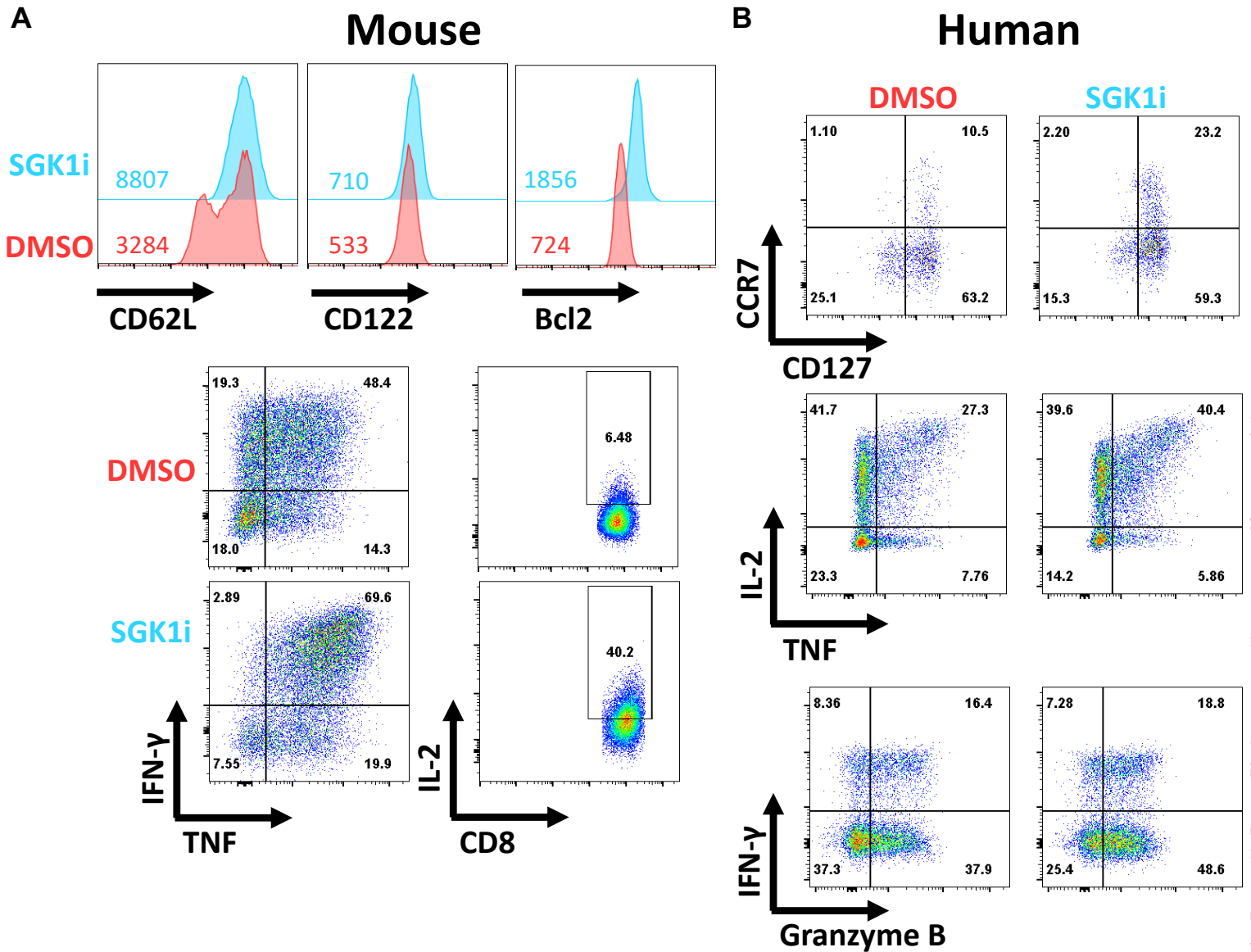
Sup Figure 1



Sup Figure 1: CD8⁺ T cell activation leads to mTORC2 dependent SGK1 activity

(A) Immunoblot analysis of mTORC2 activity as indicated by p-Akt S473 and SGK1 activity indicated by p-NDRG1 T346 in naïve CD8⁺ T lymphocytes stimulated for 0, 1 or 3 hours with Signal 1 and 2. **(B)** As in **(A)** activation of CD8⁺ T cells from WT, T-Rictor^{-/-} and T-SGK1^{-/-} CD8⁺ T cells at indicated time points **(C)** Immunoblot analysis of mTORC2 activity in isolated Day 6 in vivo (vaccinia-OVA) activated WT, T-Rictor^{-/-} and T-SGK1^{-/-} OT-I CD8⁺ T cells. Experiments are representative of 3 **(A-B)** and 2 **(C)** independent experiments.

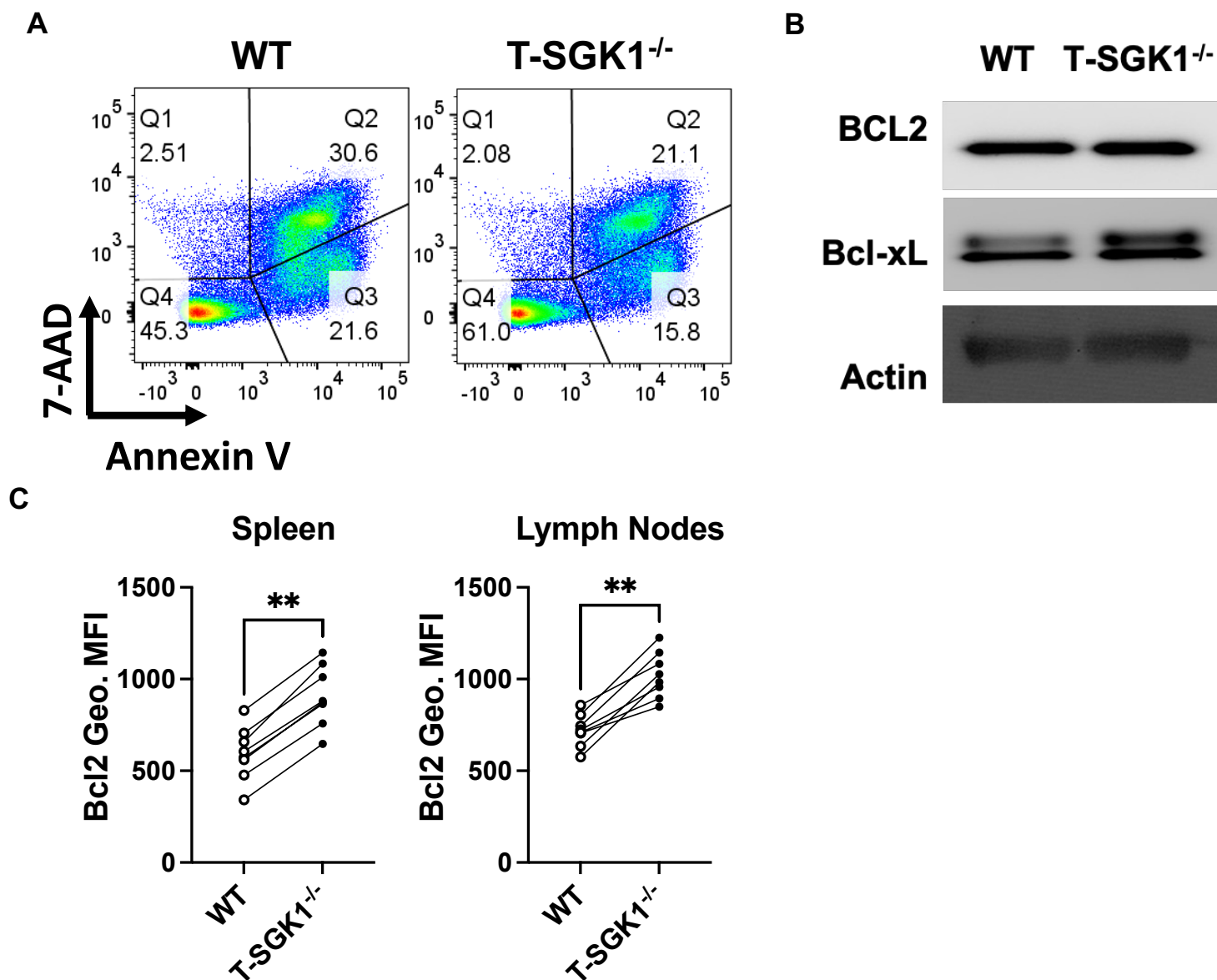
Sup Figure 2



Sup Figure 2: Inhibiting SGK1 improves CD8⁺ T cell memory generation and function

(A) WT OT-I CD8⁺ T cells were stimulated with peptide for 48hrs. On Day 3, cells were treated with SGK1 inhibitor 25uM for an additional 3 days. Flow cytometry analysis for expression of CD62L, CD122, and Bcl2. **(top)** Flow cytometry analysis for IFN γ and TNF α expression upon re-stimulation. **(bottom)** Numbers in quadrants indicate percent cells in each (throughout). Geometric mean fluorescence intensity (MFI) of surface protein expression seen inset of histogram plots. **(B)** Normal human PBMCs were stimulated with activator beads for 48hrs. On Day 3, cells were treated with SGK1 inhibitor 25uM for an additional 3 days. Flow cytometry analysis for expression of CCR7 and CD127. **(top)** Flow cytometry analysis for IL-2, TNF α , IFN γ and granzyme B expression upon re-stimulation **(middle and bottom)**. Numbers in quadrants indicate percent cells in each (throughout). Experiments are representative of 2 **(B)** or at least 3 **(A)** independent experiments.

Sup Figure 3



Sup Figure 3: SGK1 deficiency promotes CD8⁺ T cell survival

(A) WT and T-SGK1^{-/-} CD8⁺ T cells were activated with anti-CD3/28 for 48 hours then expanded in the absence of any exogenous cytokines to assess cell death with 7-AAD and Annexin V staining **(B)** Immunoblot analysis of anti-apoptotic proteins in IL-2 differentiated WT and T-SGK1^{-/-} CD8⁺ T cells. **(C)** As in Fig 1, statistical summary of flow cytometry analysis of Bcl2 expression between WT or T-SGK1^{-/-} CD8⁺ OTI T cells. Experiments are representative of at least 2 independent experiments. N =8 mice