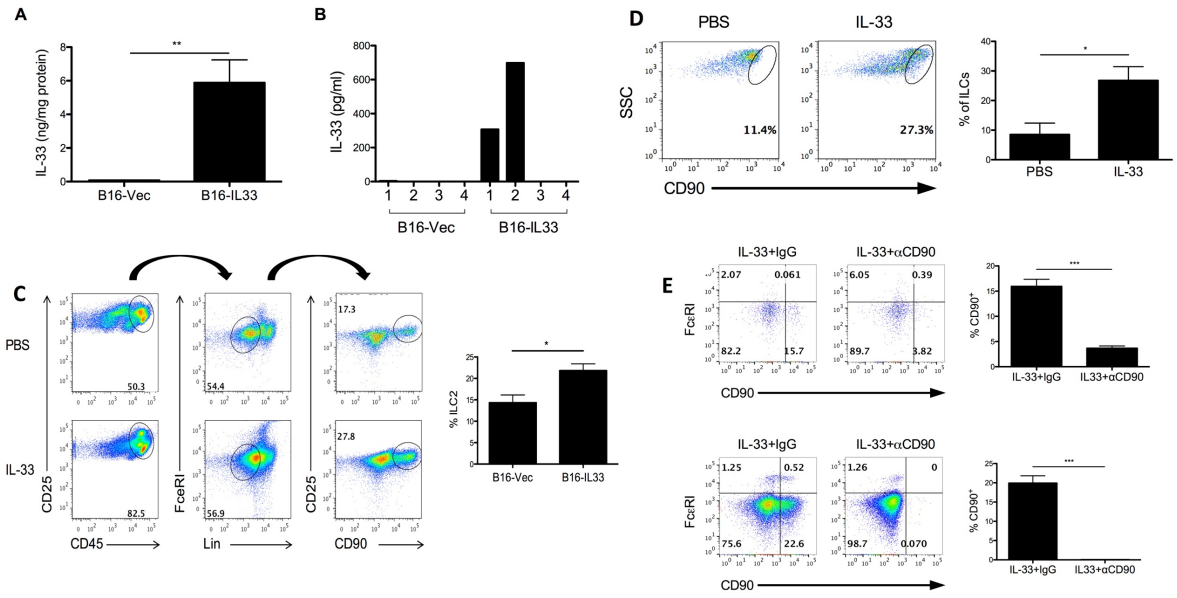
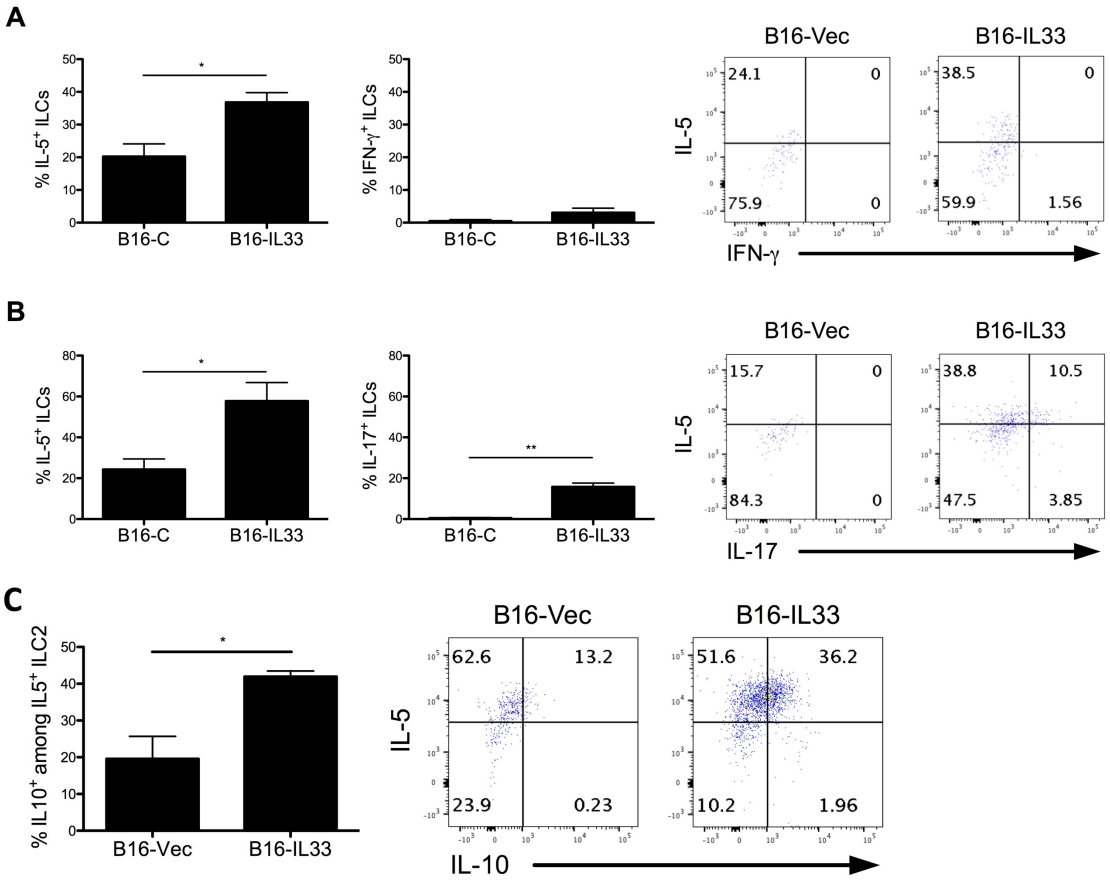
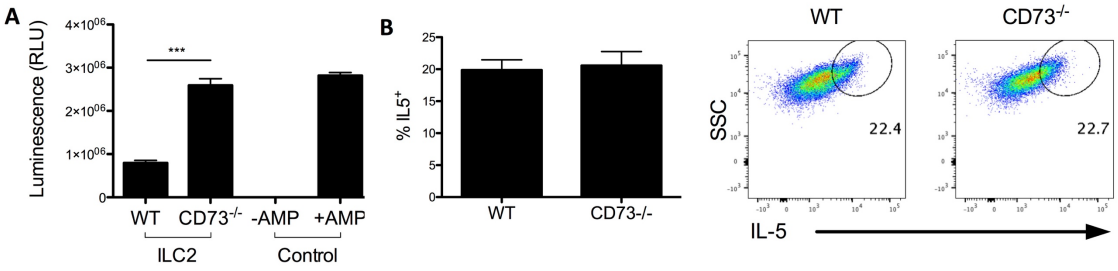


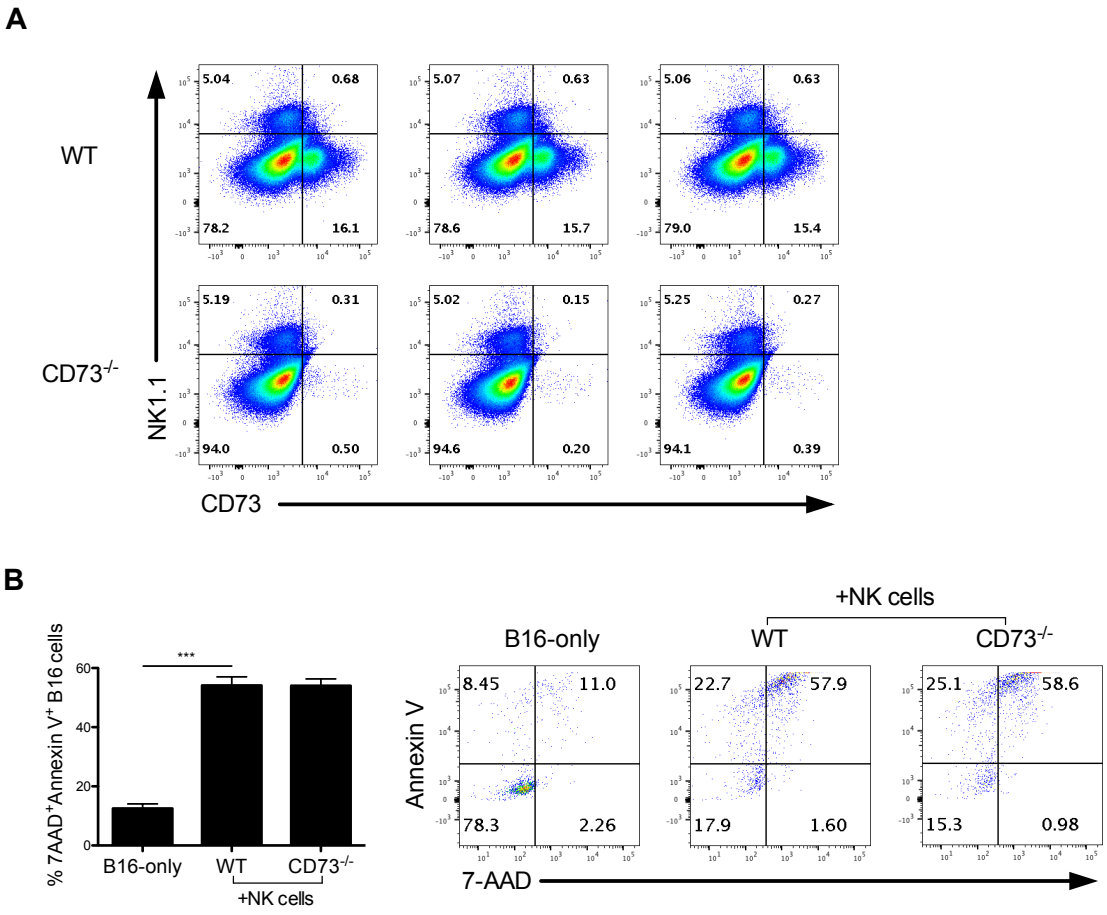
Supplementary Figure 1. (A) ELISA analysis of IL-33 in lysates of B16-Vec and B16-IL33 tumors. (B) Serum levels of IL-33 in B16-Vec and B16-IL33 tumor-bearing mice. (C) Flow cytometric analysis of splenic ILC2s in Rag1$^{-/-}$ mice with B16-Vec and B16-IL33 tumors demonstrating the gating strategy used to identify ILC2s. Cells were gated on Lin^{-} or lineage negative population, indicating CD11b^{-}CD11c^{-}Gr1^{-}NK1.1^{-}. (D) Presence of ILC2s in EL4 tumors following IL-33 treatment in Rag1$^{-/-}$ mice. (E) Representative flow panels demonstrate antibody depletion of CD90^{+} cells as a means of eliminating ILC2s from spleens (lower panels) and B16-F10 tumors (upper panels). Anti-CD90 treatment was compared to rat IgG treatment as an isotype control. ILC2s were pregated on CD11b^{-}FceRI^{-} NK1.1^{-} population. Experiment was performed in Rag1$^{-/-}$ mice. Data are shown as mean ± SEM. * $P< 0.05$; ** $P< 0.01$ as determined using a Student's *t*-test.



Supplementary Figure 2. (A) IL-33 preferentially expands ILC2s over other ILC subsets. Measurement of B16-Vec and B16-IL33 tumors for ILC1 and ILC2 presence based on IFN-γ and IL-5 production respectively. ILCs were pregated on $CD45^+CD90^+$ cells and excluded $NK1.1^+$ NK cells. (B) ILC2 and ILC3 measurement based on IL-5 and IL-17 secretion respectively. ILCs were pregated on $CD45^+CD90^+$ cells. (C) A subset of IL-5-secreting ILC2s co-express IL-10. Measurement of IL-5 and IL-10 production among ILC2s by flow cytometry. Data are shown as mean ± SEM. * $P< 0.05$; ** $P< 0.01$ as determined using a Student's *t*-test.



Supplementary Figure 3. (A) WT ILC2s, but not CD73$^{-/-}$ ILC2s, catabolize AMP into adenosine. AMP-Glo assay was used to quantify consumption of AMP by WT and CD73$^{-/-}$ ILC2 cultures. (B) CD73-deficient ILC2s display similar IL-5 production as CD73-competant ILC2s. Flow cytometric analysis of IL-5 production by WT and CD73$^{-/-}$ ILC2s generated from bone marrow. Data are shown as mean ± SEM. *** $P< 0.001$ as determined using a Student's *t*-test.



Supplementary Figure 4. NK cells do not express CD73 nor is their cytolytic capacity directly affected by its loss. (A) Flow cytometric analysis of spleens of WT and CD73$^{-/-}$ mice. (B) B16F10 cell death was assessed by annexin V and 7-AAD following coculture with WT and CD73$^{-/-}$ NK cells. B16F10 and NK cells cultured at a ratio of 1:20. Data are shown as mean ± SEM. *** $P< 0.001$ as determined using a Student's *t*-test.