

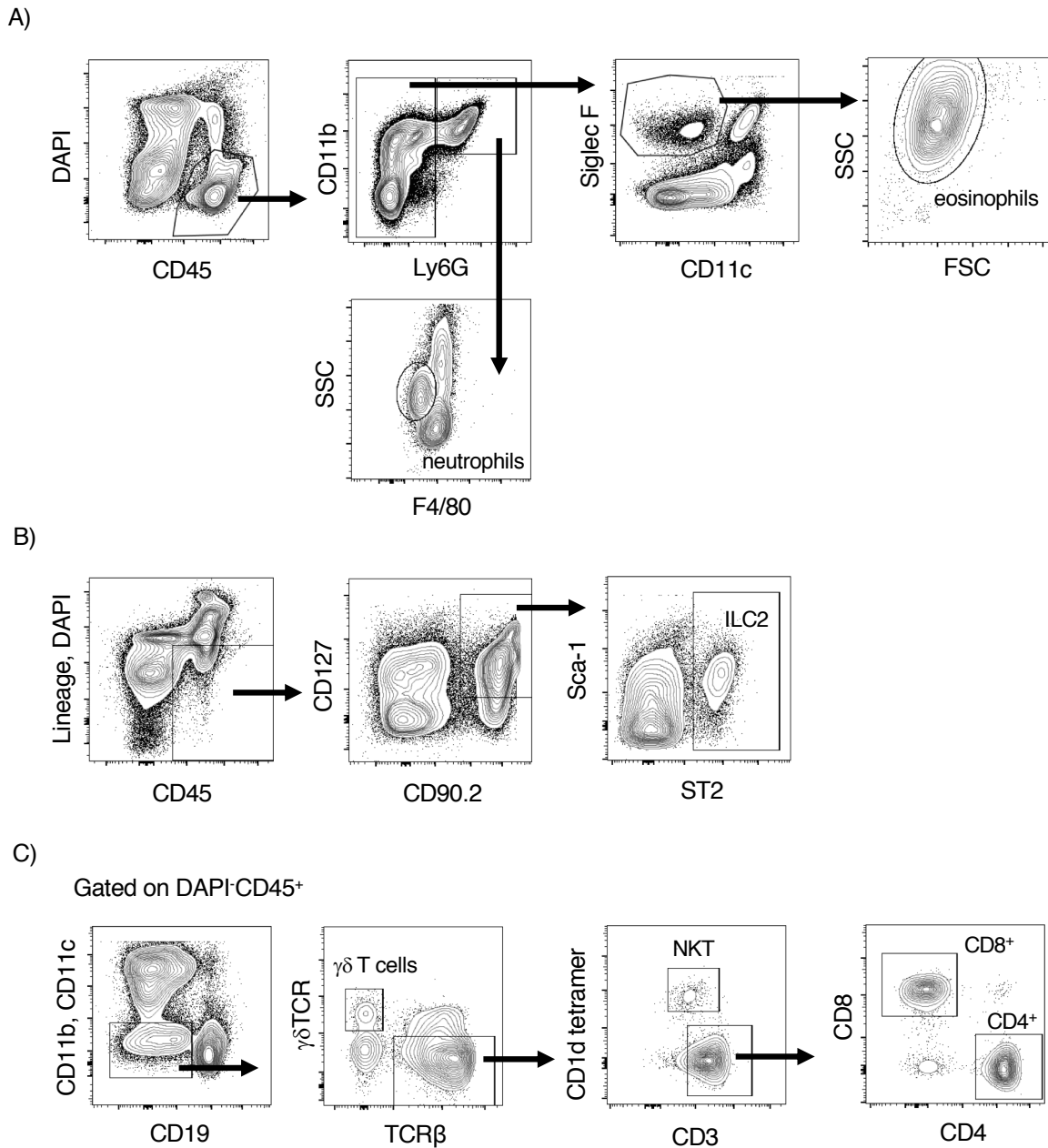


Figure 1S. Representative flow cytometry gating scheme for lung and spleen granulocytes, ILC2s, and lymphocytes in the lung and spleen. C57BL/6 mice were treated with PBS, IL-33, PBS+S. aureus, or IL-33+S. aureus and lungs were harvested 18 hours p.i. (A) Shown are representative flow cytometry plots for lung and spleen eosinophils (CD45⁺CD11c^{lo}Siglec F⁺SSC^{hi}) and neutrophils (CD45⁺CD11b^{hi}Ly6G^{hi}F4/80⁻). (B) Lung ILC2s were identified as live, lineage marker negative, CD45⁺CD127⁺CD90⁺ST2⁺. (C) T Cells were identified by selecting CD45⁺CD11b⁻CD11c⁻CD19⁻ which further divided into TCRβ⁺ T cells or γδT cells (TCRγδ⁺ TCRβ⁻CD1d Tetramer⁻). TCRβ⁺ T cells included NKT (CD1d Tetramer⁺ TCRγδ⁻), CD4⁺ (CD3⁺CD4⁺TCRγδ⁻CD1d tetramer⁻) or CD8⁺ (CD3⁺CD8⁺TCRγδ⁻CD1d tetramer⁻) T cells.

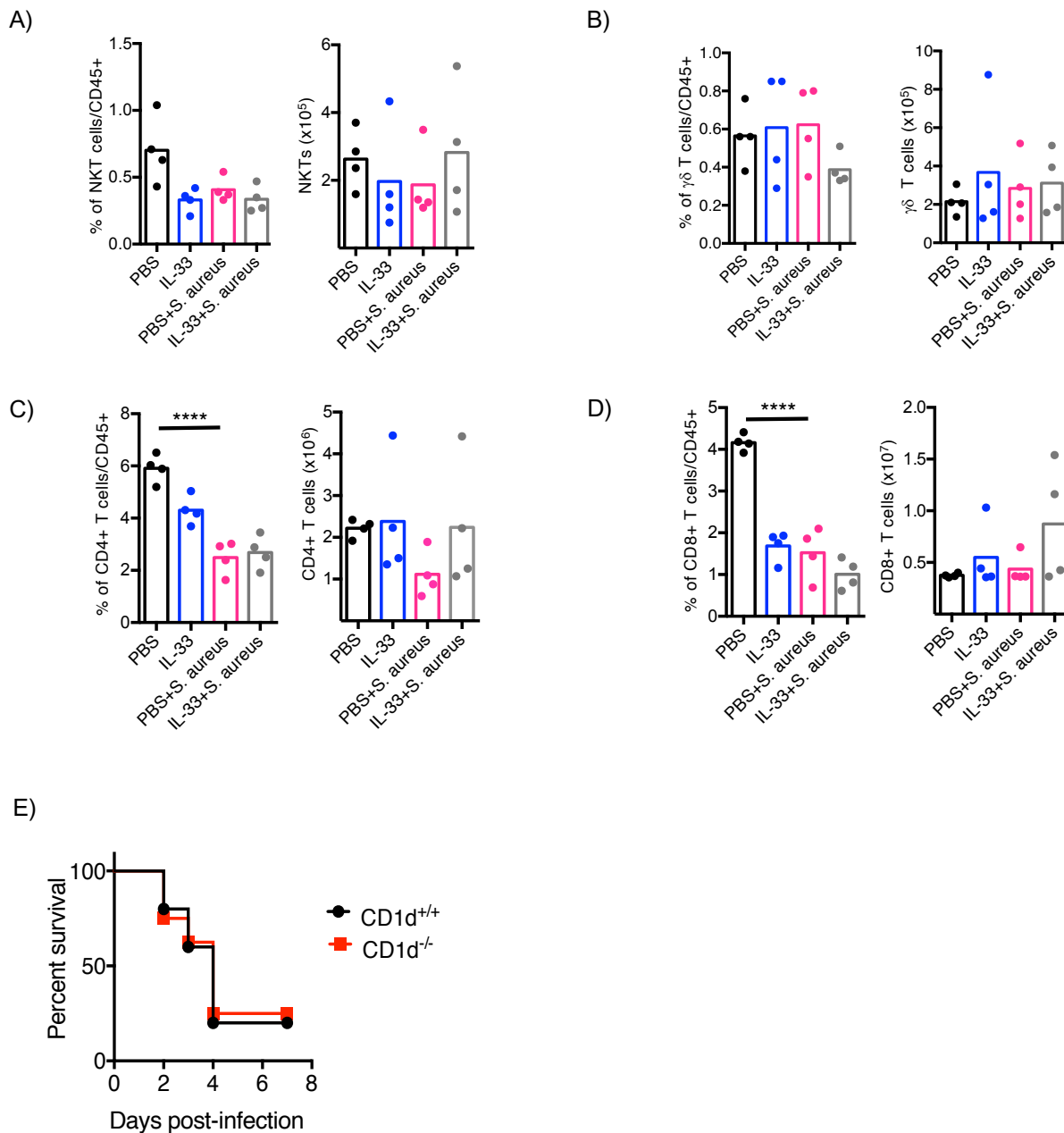


Figure 2S. IL-33 pretreatment does not influence T cell subsets during *S. aureus* bacteremia. C57BL/6 mice were treated with PBS, IL-33, PBS+S. aureus, or IL-33+S. aureus and lungs were harvested 18 hours p.i. Shown are representative graphs for (A) NKT, (B) $\gamma\delta$ T cells, (C) CD4⁺, and (D) CD8⁺ T cells. All percents were normalized to live CD45⁺ cells. Shown are representative graphs of 2 experiments, with a sample size of 4 mice per group. ****p<0.0001, unpaired student t-test. Non-significant comparisons are not shown. (E) Kaplan-Meier survival curve for CD1d^{+/+} and CD1d^{-/-} mice. Sample sizes were n=5 for CD1d^{+/+} and for n=8 CD1d^{-/-} mice.

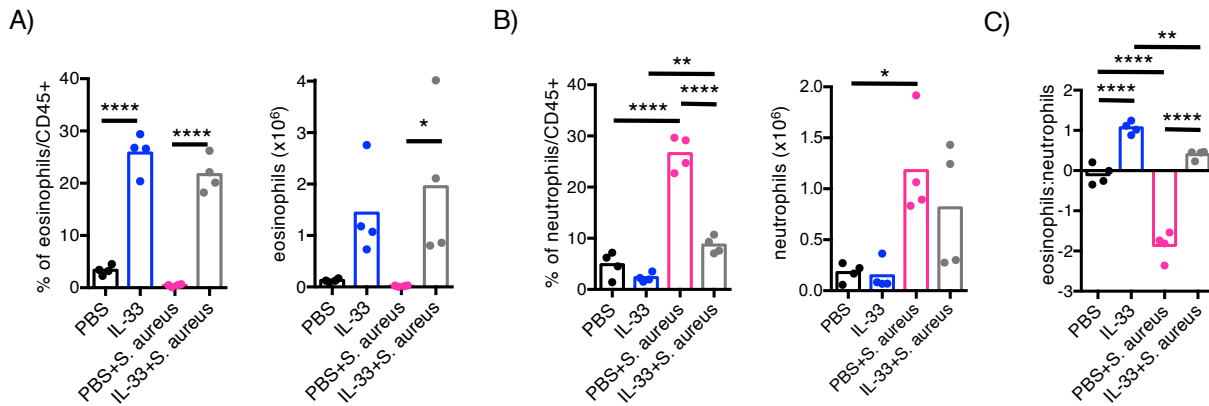


Figure 3S. IL-33 mediates eosinophilia and reduces neutrophilia in C57BL/6 mice during *S. aureus* bacteremia. C57BL/6 mice were treated with PBS, IL-33, PBS+S. *aureus* or IL-33+S. *aureus* and euthanized 18 hours p.i. Graphs depicting the frequency and total cell number of lung (A) eosinophils or (B) neutrophils. Percents were normalized to live CD45⁺ cells. (C) Ratio of lung eosinophils to neutrophils expressed using logarithmic transformation. Shown are representative graphs of 2 experiments, with a sample size of 4 mice per group. Non-significant comparisons are not shown. * $p < 0.05$; ** $p < 0.01$; **** $p < 0.0001$, One-way ANOVA with Sidak's multiple comparison test.

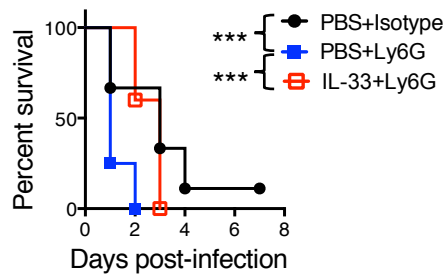


Figure 4S. Neutrophils are required for survival during *S. aureus* bacteremia.

Neutrophils were depleted in C57BL/6 mice with Ly6G (1A8) antibody. Controls received isotype control. The following day both groups were infected with *S. aureus*. Mice were monitored for survival for 7 days p.i. Shown are Kaplan-Meier survival curves of two pooled experiments, with a sample size of 5-9 mice per group. Statistical significance was determined using the Log-rank (Mantel-Cox). *** $p < 0.001$