Supplementary Material

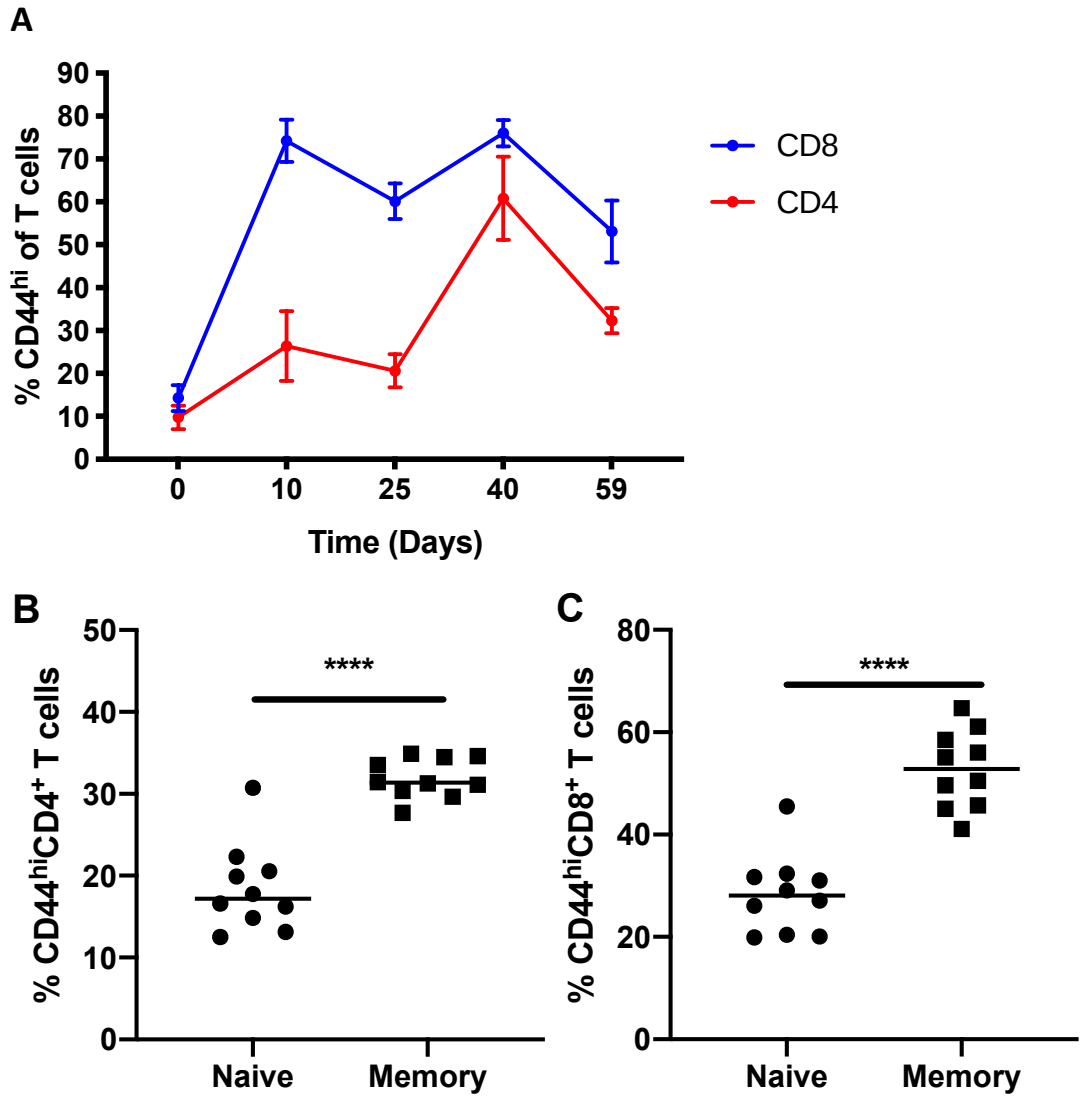

Fig. S1. Generation and characterization of memory T cells after infection and CD28 expression between memory and naïve mice. Naïve B6 mice were infected with *Listeria monocytogenes* (LM) and developed a population of memory T cells. Mice were infected with LCMV intraperitoneally 30 days later. The Frequency of memory T cells was assessed on d0, 10, 25, 40, 59 post-LM by flow cytometry. (A) Expansion of $CD44^{hi}CD4^{+}$ and $CD44^{hi}CD8^{+}$ T cells in the blood over time following antigen exposure (d0, n=10/group; d10, 25, 40, 59, n=20/group). (B) Summary of frequency of $CD44^{hi}CD4^{+}$ T cells in naïve mice compared with memory mice (n=10/group) on d59 following infection. (C) Summary of frequency of $CD44^{hi}CD8^{+}$ T cells in naïve mice compared with memory mice (n=10/group) on d59 following infection. Data expressed as mean ± SEM. Groups were compared with the Mann-Whitney nonparametric tests. ****, $p<0.0001$.

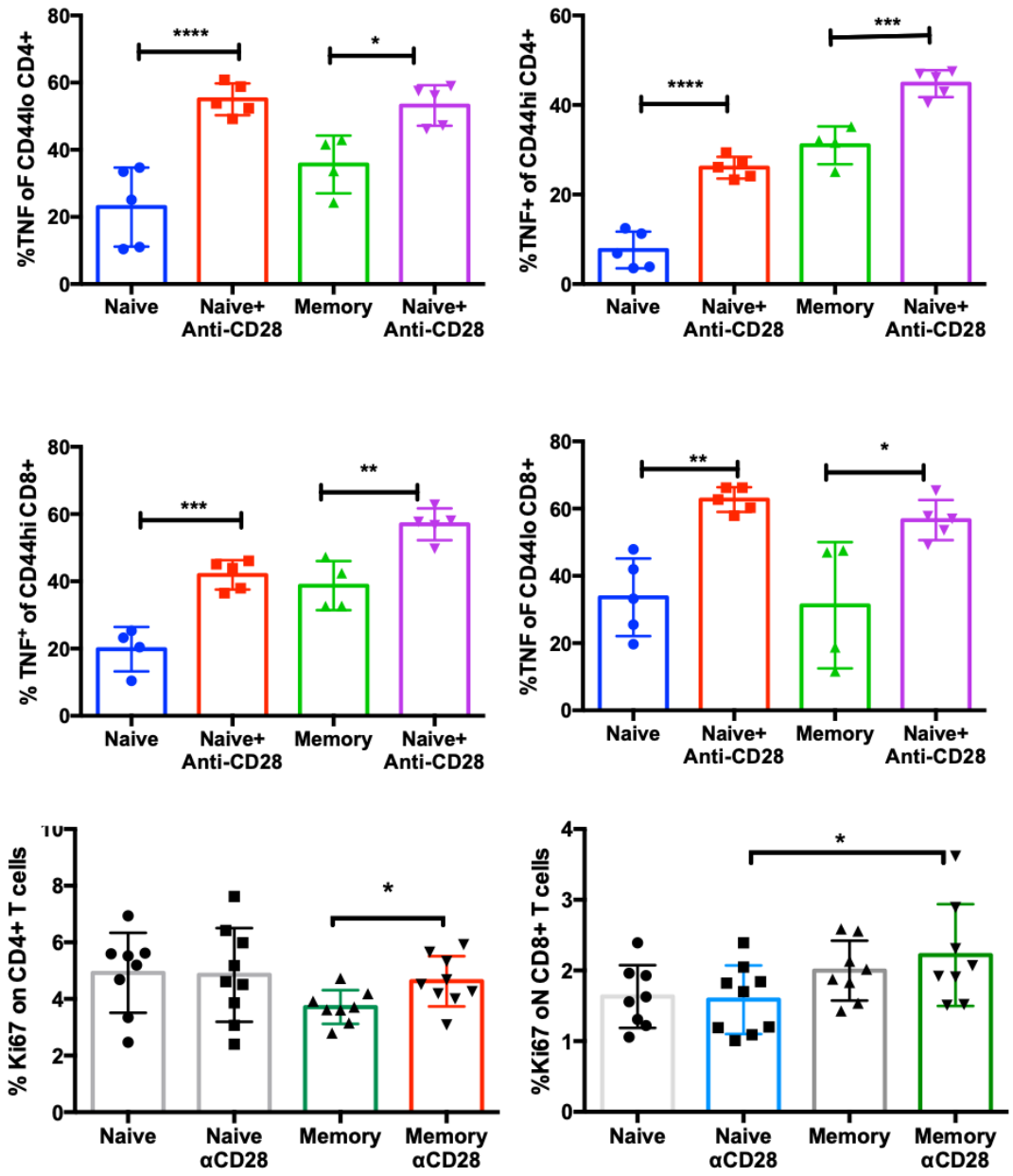

Fig. S2. αCD28Ab functions as an agonist to increase cytokine secretion and proliferation in T cells during sepsis. Memory and naïve mice received CLP in the presence or absence of αCD28Ab. Splenocytes were harvested at 24h post-CLP, restimulated ex vivo with PMA/iono, and stained intracellularly for TNF or Ki67. Data were pooled from two independent experiments. Groups (n=4-9/group) were compared with one-way ANOVA analysis and Turkey multiple comparison test. *, p<0.05, **, *p*<0.01 and ****, *p*<0.0001.

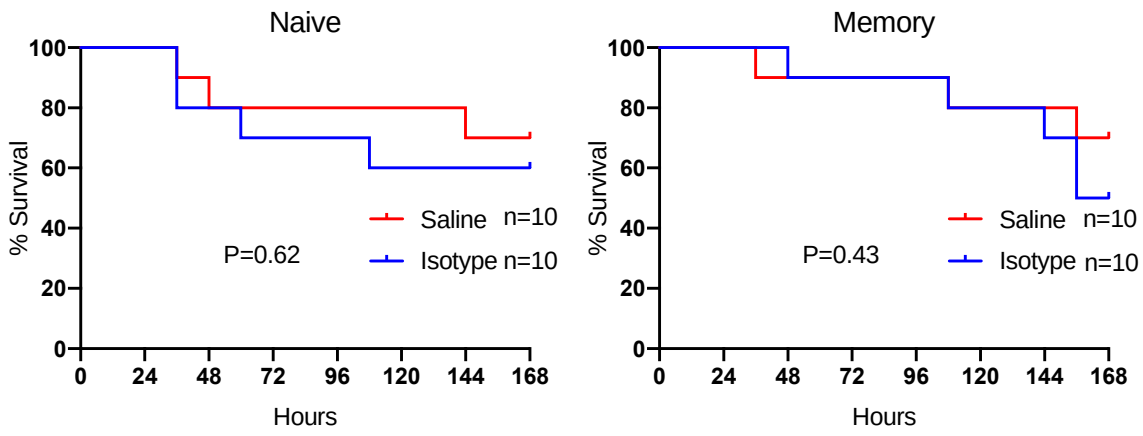

Fig. S3. Isotype antibody of αCD28 has no impact on survival in either naïve septic mice or memory septic mice. Memory and age-matched naïve mice received CLP and were treated with either saline or isotype of αCD28 antibody （polyclonal Syrian hamster IgG) at d0, 2, 4, 6. All the mice were monitored for 7-day survival. All data were pooled from two independent experiments. The log-rank (Mantel-Cox) test was used to test for significance.

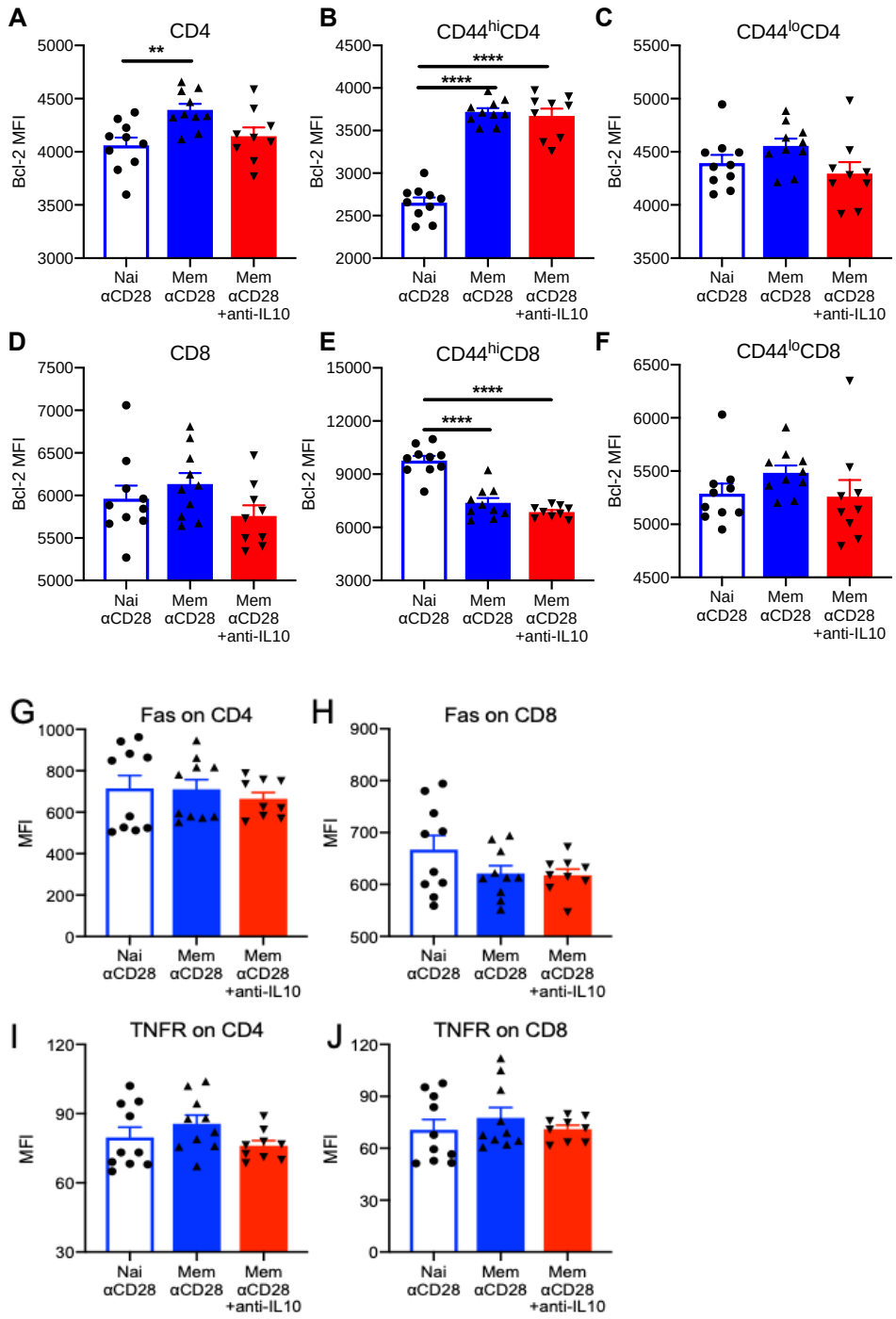

Fig. S4. Bcl-2, Fas, or TNFR1 on T cells in memory septic mice treated with αCD28Ab is not affected by blockade of IL-10. Memory and naïve mice received CLP and αCD28Ab followed by either anti-IL-10 Ab or isotype Ab. Splenocytes were harvested at 24h post-CLP and stained intracellularly with anti-Bcl-2, anti-Fas, or anti-TNFR. Data were pooled from two independent experiments. Groups (n=9-10/group) were compared with one-way ANOVA analysis and Turkey multiple comparison test. **, p<0.01 and ****, p<0.0001.