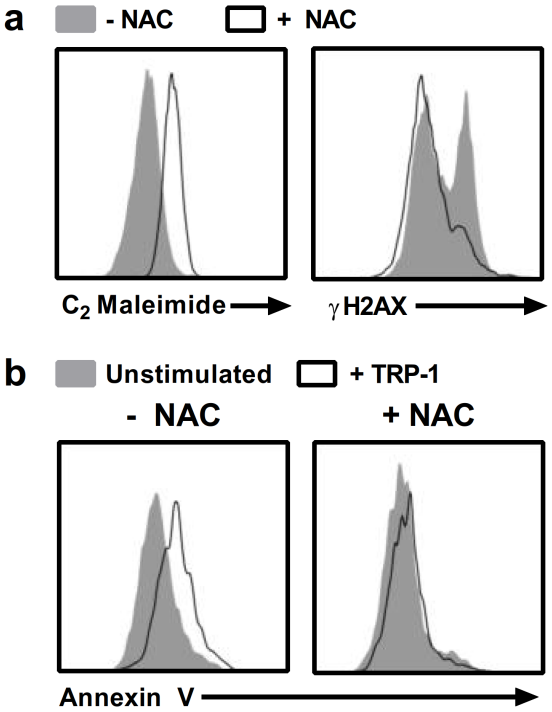
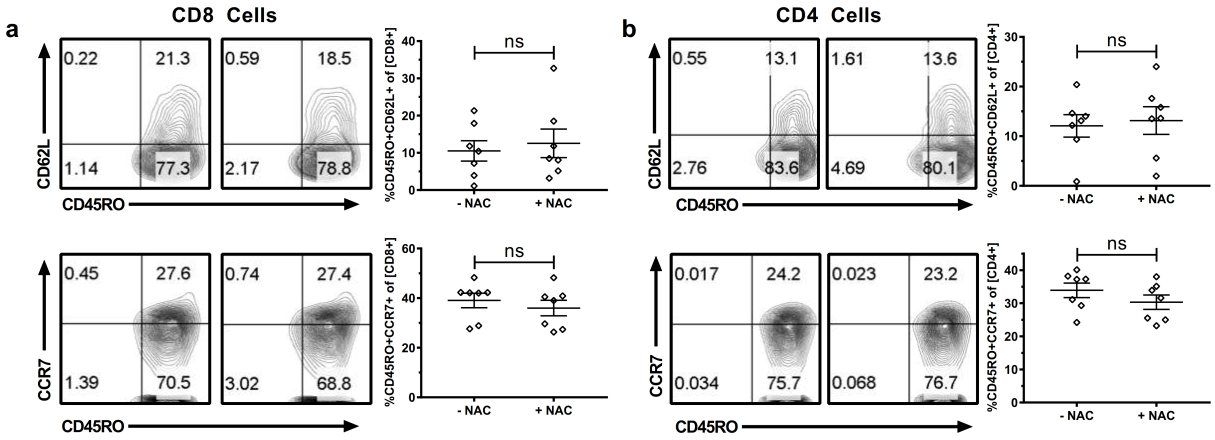
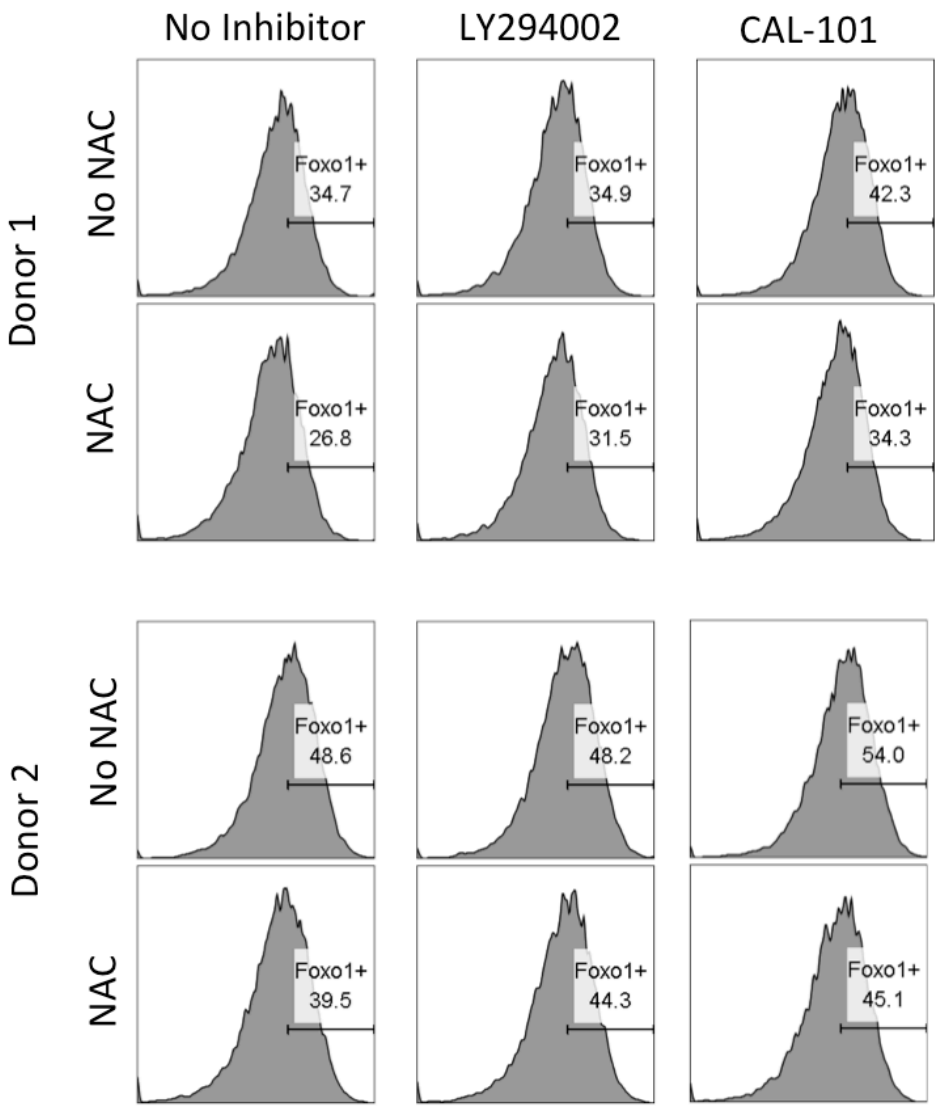


Supplemental Figure 1. Murine TCR-engineered T cells expanded in NAC have an improved antioxidant capacity and are more resistant to DNA damage and AICD. TRP-1 TCR transduced mouse splenocytes were expanded and restimulated. $V\beta14^{+}CD8^{+}$ TRP-1 TCR transduced cells were analyzed for (**a**) surface thiols (left) and γH2AX expression (right) and (**b**) Annexin V staining. Histograms shown are representative of two independent experiments.



Supplemental Figure 2. Expansion in NAC does not alter ratio of central and effector memory markers. TIL1383I TCR transduced T cells rapidly expanded (± 2mM NAC) were surface stained for expression of CD45RO, CD62L, and CCR7 and gated on either (**a**) CD8 or (**b**) CD4 cells. Left panels display representative contour plots. Right panels are quantification (mean ± SEM) of n=7. ns=not significant



Supplemental Figure 3. The NAC mediated reduction of Foxo1 is not dependent on PI-3Kδ. T cells were pretreated with either LY294002 (20µm) or CAL-101 (10µm) for 60 min prior to adding NAC (25mM) for an additional 60 min. Displayed are representative histograms of $CD8^+$ cells from 2 donors. Differences in Foxo1 staining (NAC minus no NAC) were 8.5 ± 0.85 without inhibitor, 3.65 ± 0.35 for LY294002, and 8.45 ± 0.63 for CAL-101. The extent of Foxo1 degradation was significantly reduced with LY294002 ($p<0.05$), but not with CAL-101.