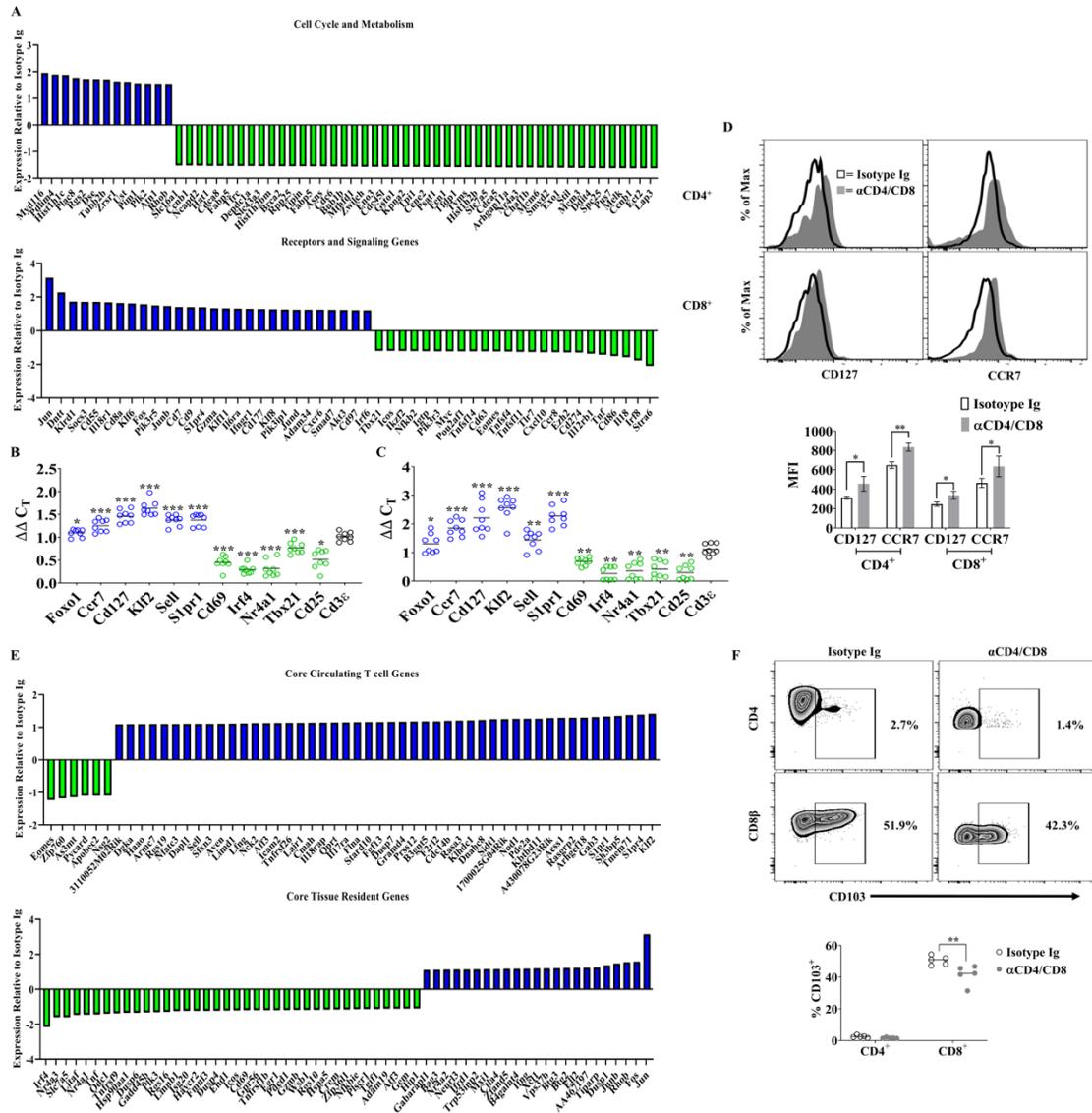
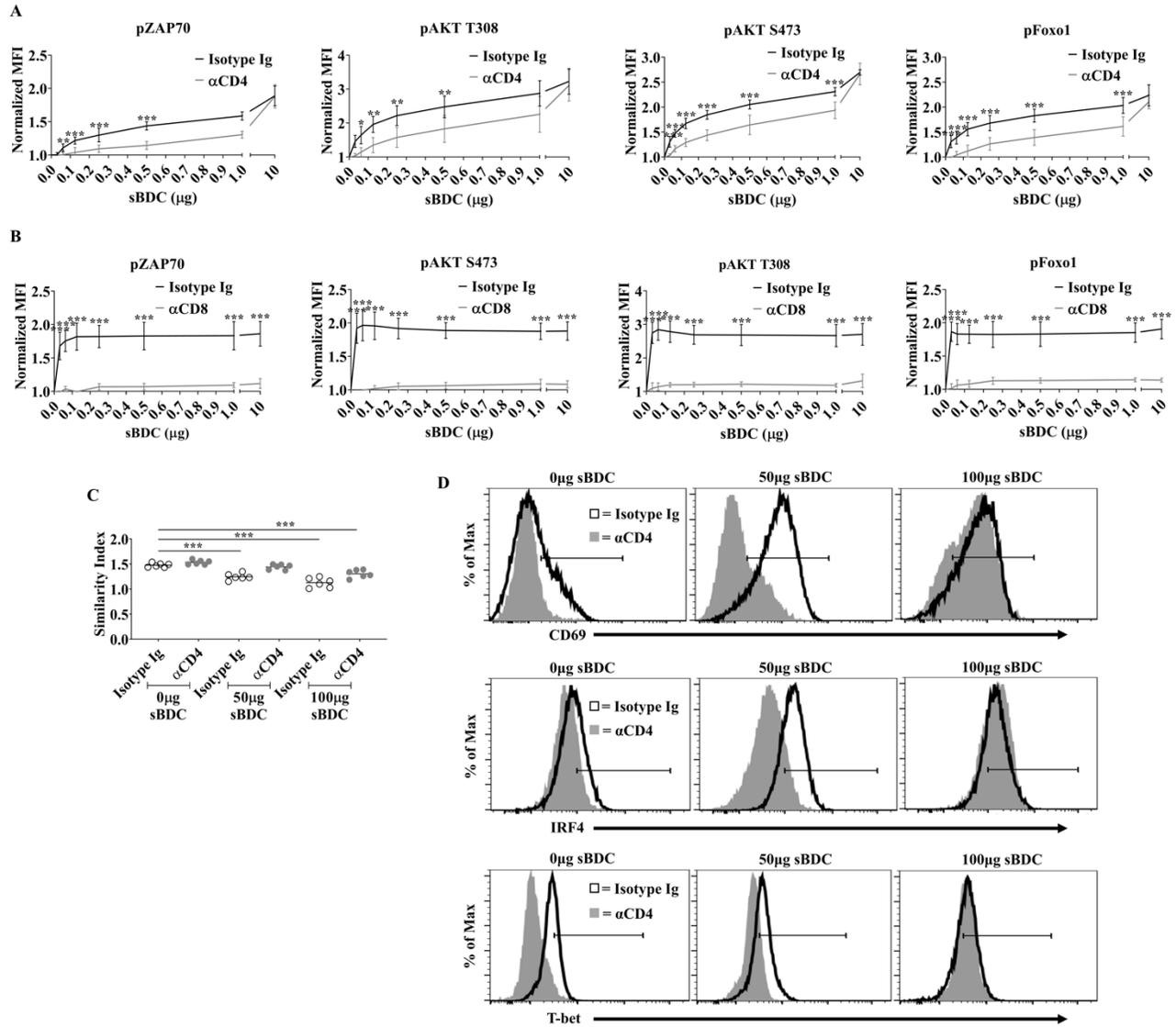


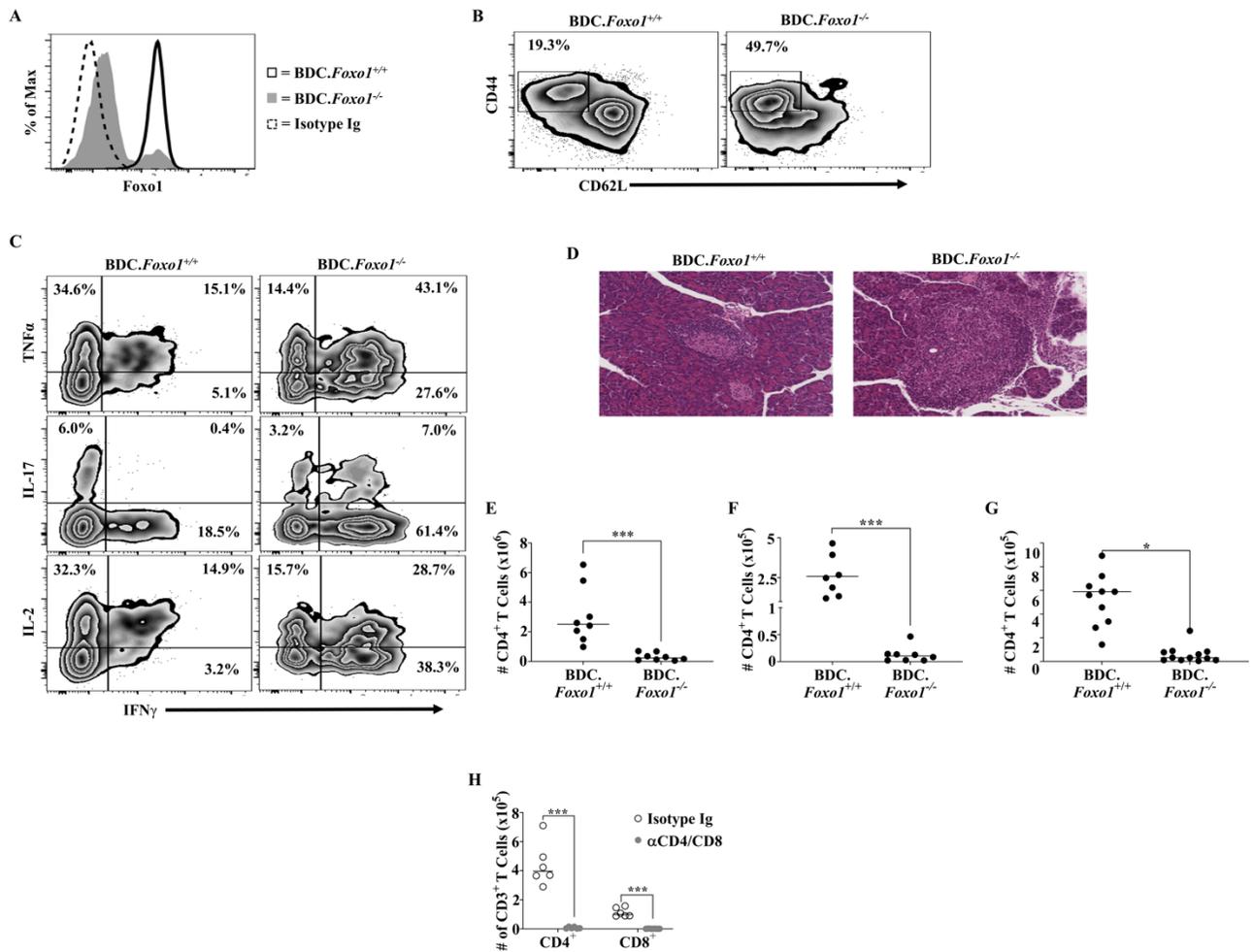
Supplemental FIGURE 1. ND α CD4/CD8 Ab treatment induces T1D remission and T cell egress from inflamed tissues. **A)** BDC mice (N=6) were treated with ND α CD4 or control Ab, 24 hrs later splenocytes stimulated with 1 μ g sBDC peptide *in vitro* or PMA/Ionomycin for 4 hrs, and CD4⁺ T cells assessed for intracellular staining by FACS. Plots provide the percent of IL-2⁺ and IFN γ ⁺ T cells stimulated with peptide and treated with Ab. **B)** BDC and **C)** 8.3 mice (N=6) received ND α CD4 or α CD8 α , respectively, and PLN T cells were analyzed 48 hrs later by FACS. **D)** BDC and **E)** 8.3 mice (N=8) received ND α CD4 or α CD8 α , respectively, and T cells enumerated by FACS in the spleen, PLN, and pancreas at various times post-treatment. P value determined by Students t-test (**A-C**) or 2-way ANOVA (**D, E**). Error bars depict SD. *P<0.05, **P<0.01, ***P<0.001. Data are pooled from 2 experiments.



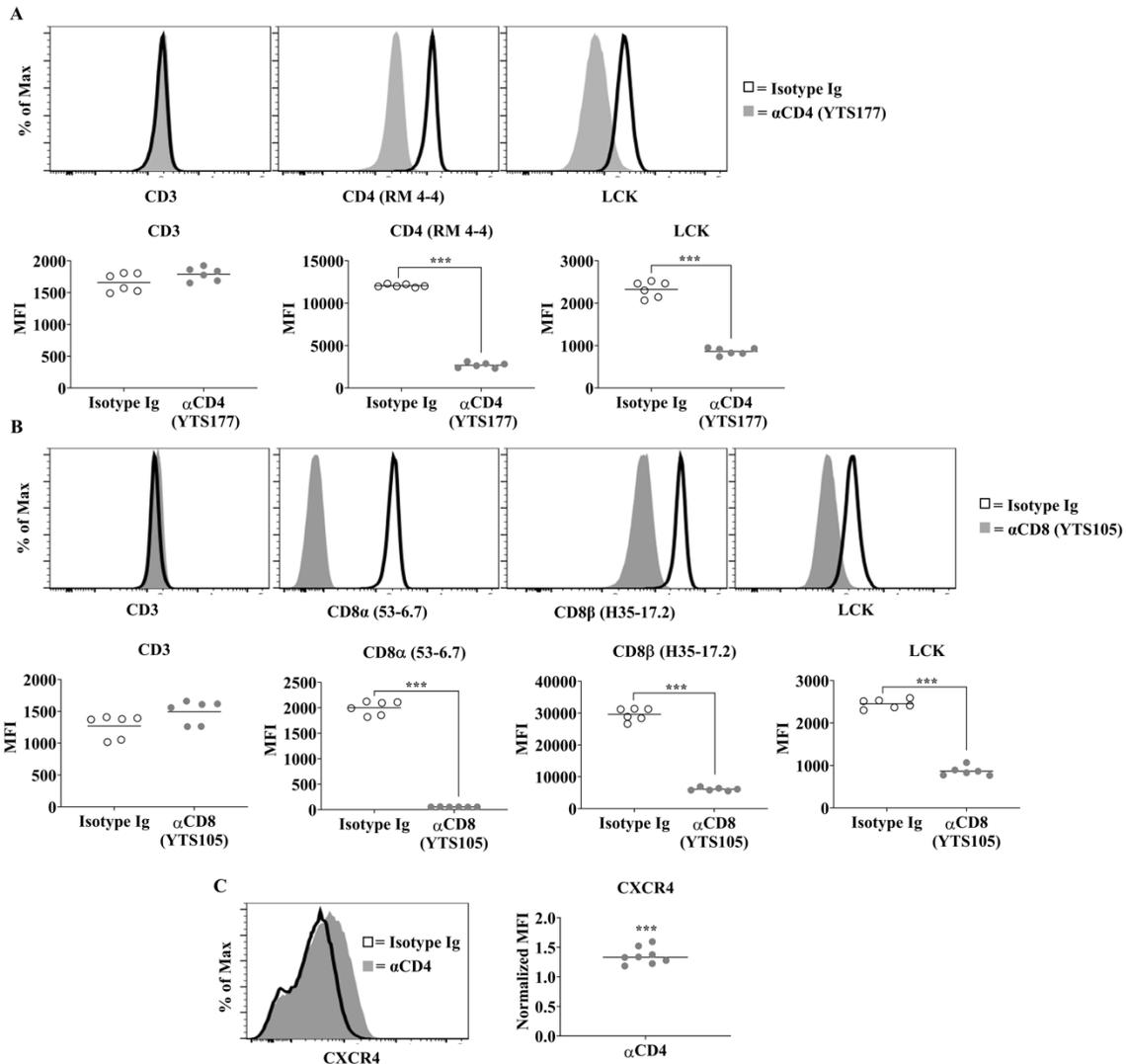
Supplemental FIGURE 2. Foxo1 regulated gene expression is increased in T cells after ND α CD4/CD8 Ab treatment. **A, E)** Microarray analysis of FACS-sorted CD4⁺ T cells from the PLN of BDC mice 48 hrs after ND α CD4 or control Ab treatment. Values relative to the Ab control cohort. **B, C)** mRNA expression measured by qRT-PCR in **(B)** CD4⁺ and **(C)** CD8⁺ T cells isolated from the pancreas of NOD mice (N=8) 24 hrs after receiving ND α CD4/CD8 α or control Ab. $\Delta\Delta C_T$ calculated relative to Ab control-treated CD4⁺ or CD8⁺ T cells (Foxo1 related genes in blue; T cell activation genes in green). **D, E, F)** 12wk-old NOD female mice (N=5) were treated with ND α CD4/CD8 α or isotype control Ab, and pancreatic T cells analyzed 48 hrs later by FACS. P value determined by Students t-test **(B-D, F)**. Error bars depict SD. *P<0.05, **P<0.01, ***P<0.001. Data are pooled from 2 experiments.



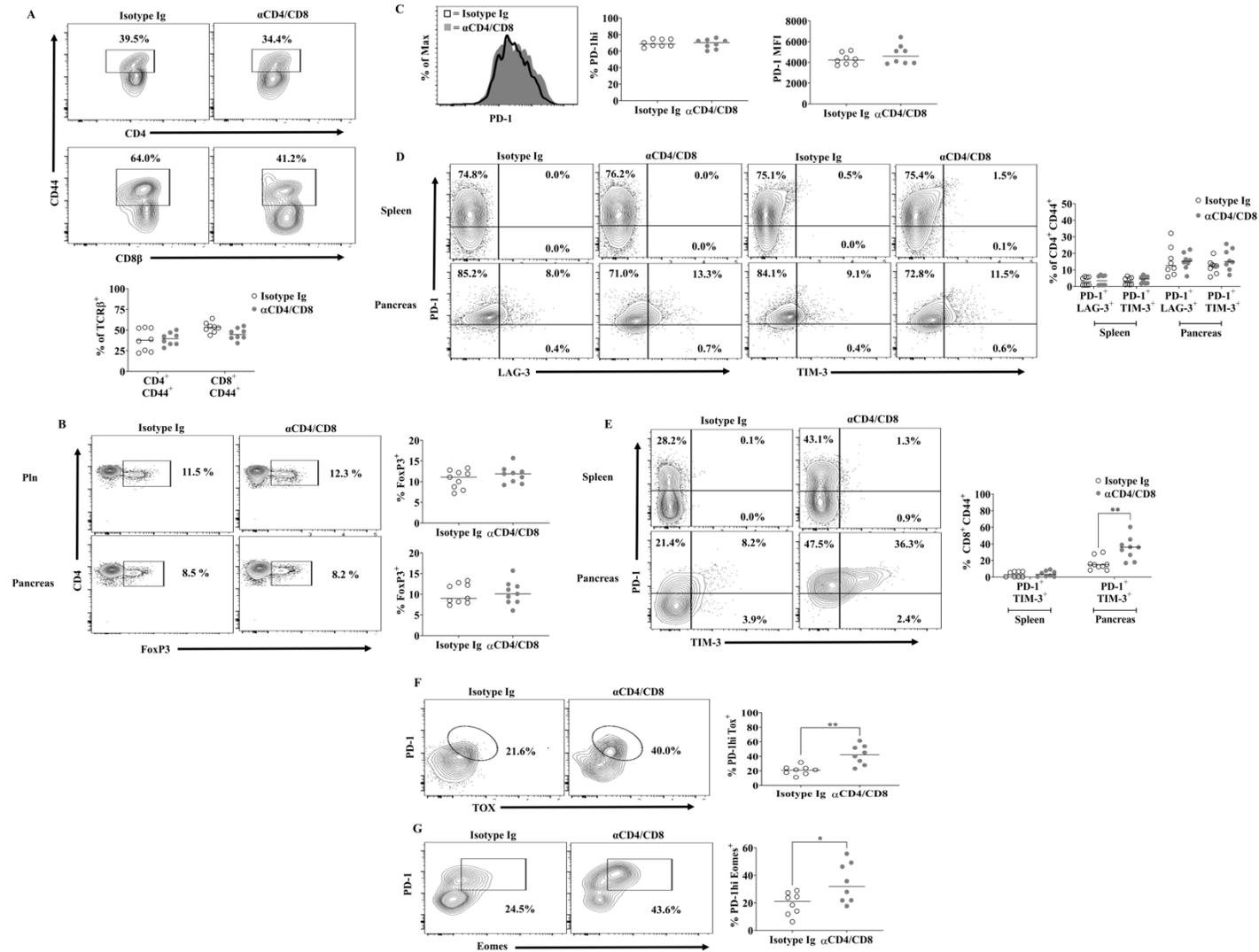
Supplemental FIGURE 3. TCR signaling-dependent pancreatic T cell tissue residency is lost upon CoRT induced Foxo1-S1pr1. **A)** BDC and **B)** 8.3 mice were treated with ND α CD4 and α CD8 α , respectively, or control Ab, 24 hrs later splenocytes isolated and stimulated *in vitro* for 30 min (pZAP70) or 1 hr (pAKT/Foxo1) with cognate peptide (N=6), and TCR signaling assessed by FACS. **C, D)** BDC mice were treated with ND α CD4 or control Ab (N=6), immunized with sBDC (**C**) 18 hrs later, and after 1 hr PLN T cells examined by image stream flow cytometry, and (**D**) 6 hrs later, and after 18 hrs pancreatic CD4⁺ T cells examined by FACS. Error bars depict SD. *P<0.05, **P<0.01, and ***P<0.001 determined by Students t-test (**A, B**) or 2-way ANOVA (**C, D**). Data are pooled from 2 to 3 experiments.



Supplemental FIGURE 4. CoRT-induced T cell egress is Foxo1-dependent. **A** and **B**) Gated splenic CD4⁺ T cells from BDC.*Foxo1*^{+/+} and BDC.*Foxo1*^{-/-} mice were assessed for (A) intracellular Foxo1 expression, and (B) activation status. **C**) Gated splenic CD4⁺ T cells from BDC.*Foxo1*^{+/+} and BDC.*Foxo1*^{-/-} mice were assessed for intracellular cytokine expression 4 hrs after PMA/ionomycin treatment by FACS. **D**) Representative pancreas sections stained with hematoxylin and eosin from BDC.*Foxo1*^{+/+} and BDC.*Foxo1*^{-/-} mice. **E, F, G**) Splenic (N=8) (E), PLN (N=8) (F), and pancreatic (N=10) (G) CD4⁺ T cells in BDC.*Foxo1*^{+/+} and BDC.*Foxo1*^{-/-} mice were enumerated by FACS. **H**) NOD.*Lck*^{Cre} mice (N=6) were treated with ND α CD4/CD8 α or control Ab, and 72 hrs later pancreatic CD4⁺ and CD8⁺ T cells enumerated by FACS. P value determined by Students t-test (E-H). Error bars depict SD. *P<0.05, **P<0.01, ***P<0.001. Data are pooled from a minimum of 3 experiments.



Supplemental FIGURE 5. CoRT decreases CD4 and CD8 surface expression, and intracellular Lck. **A)** BDC and **(B)** 8.3 mice (N=6) were treated with ND αCD4 and ND αCD8α, respectively, or control Ab, and 48 hrs later splenocytes isolated. Gated **(A)** CD4⁺ and **(B)** CD8⁺ T cells were examined by FACS for surface expression of CD3, CD4 (RM 4-4), CD8α (53-6.7), and CD8β (H35-17.2), or intracellular Lck. **C)** BDC mice (N=8) were treated with ND αCD4 (YTS177) or isotype control Ab, 48 hrs later splenocytes were isolated and analyzed by FACS. P value determined by Students t-test **(A-C)**. Error bars depict SD. *P<0.05, **P<0.01, ***P<0.001. Data are pooled from 2 experiments.



Supplemental FIGURE 6. ND α CD4/CD8 Ab treatment promotes selective CD8⁺ T cell exhaustion. **A-D)** 12 wk-old NOD female mice received 2 injections one day apart with ND α CD4/CD8 α or isotype control Ab, and 60 d later T cells examined via FACS. **A)** Percent of pancreatic CD44⁺ CD4⁺ and CD8⁺ T cells in ND α CD4/CD8 α (N=8) or control Ab (N=8) groups. **B)** Frequency of pancreatic and PLN CD4⁺ T cells expressing FoxP3 in ND α CD4/CD8 α (N=8) or control Ab (N=8) groups. **C-D)** Frequency of pancreatic and splenic CD44⁺ CD4⁺ T cells co-expressing PD-1 and LAG-3 or TIM-3 in ND α CD4/CD8 α (N=8) or control Ab (N=8) groups. **E-G)** Pancreatic and splenic CD44⁺ CD8⁺ T cells were examined by FACS for PD-1 and co-expression of TIM-3, TOX and Eomes 60 d post-treatment with ND α CD4/CD8 α (N=8) or control Ab (N=8). P value determined by Student's t-test (**A-G**). Error bars depict SD. *P<0.05, **P<0.01, ***P<0.001. Data are pooled from 2 experiments.