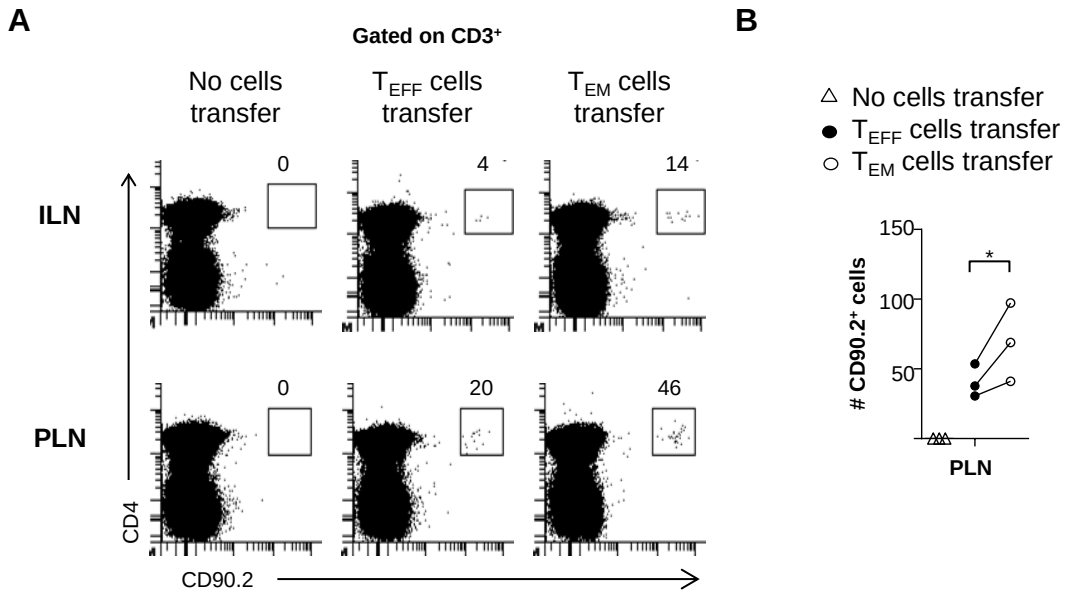
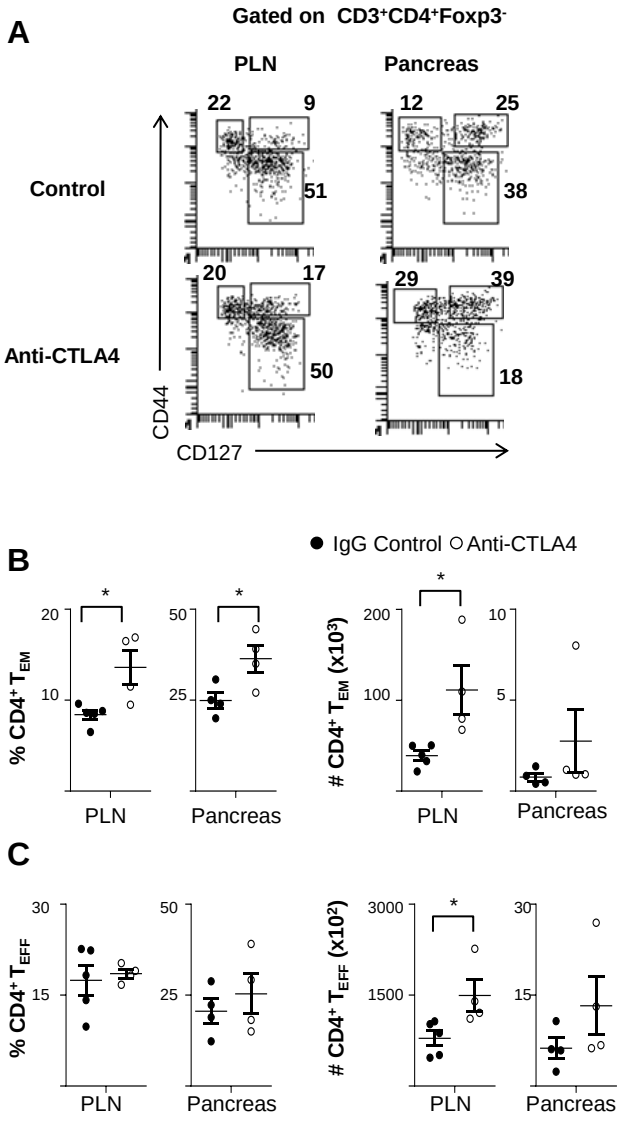
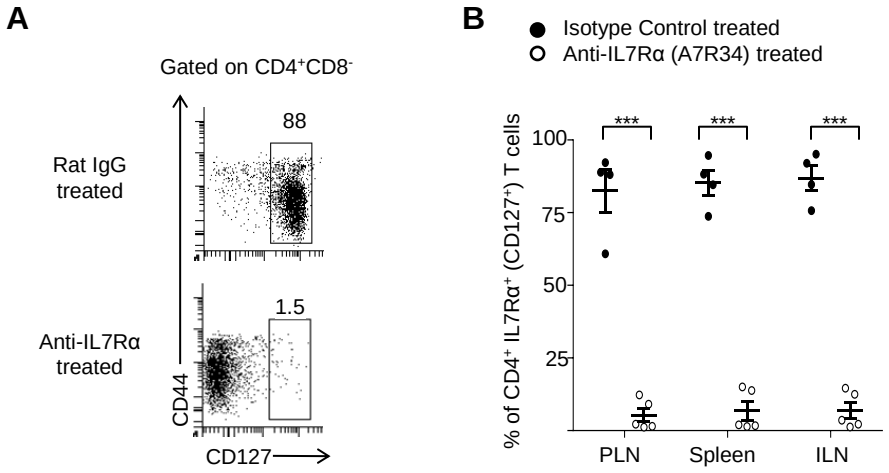


Supplemental Figure 1. Superior expansion and / or survival of autoantigen-specific CD4$^+$ T_{EM} cells versus CD4$^+$ T_{EFF} cells in a lymphoreplete system. (**A**) CD4$^+$ T_{EM} cells and CD4$^+$ T_{EFF} cells were purified from BDC2.5/NOD (CD90.2) mice and adoptively transferred into CD90.1 congenic NOD mice. The transferred cells were identified using CD90.2 congenic marker by flow cytometry analyses. The numbers on the gated population are cell numbers calculated per million total cells analyzed for the lymph nodes. (**B**) Comparison of the total cell numbers of CD90.2$^+$ cells in the PLN of NOD CD90.1 mice transferred with CD4$^+$ T_{EM} versus CD4$^+$ T_{EFF} cells, purified by flow cytometry sorting from BDC2.5 (n=3 from 3 independent experiments). Each data point represents one animal. *$p<0.05$, ratio-paired *t* test was used for statistical analysis of the three independent experiments.



Supplemental Figure 2. Anti-CTLA4 antibody treatment increases CD4⁺ Effector memory formation. (**A)** Flow cytometry analyses of the naïve, T_{EFF} and T_{EM} subsets of the conventional CD4⁺ T cell compartment in the pancreatic lymph nodes (PLN) & pancreas (Numbers represent percentages of gated CD4⁺ T_{conv} population). (**B-C)** Frequencies and total cell numbers of CD4⁺ T_{EM} (**B)** and CD4⁺ T_{EFF} (**C)** cells in anti-CTLA4 treated BDC2.5/NOD mice (n=4-5 per group from 2 experiments)**.** Each data point represents one animal (Mean ±SEM). *p<0.05.



Supplemental Figure 3. Efficacy of anti-IL7Rα treatment. A. Anti-IL7Rα (clone A7R34) treatment resulted in successful blocking of the IL7Rα as indicated by the absence of CD127 staining in the spleen and lymph nodes of treated mice. Numbers represent percentages of gated population. Mice were analyzed by flow cytometry, at 1 day to 5 weeks after treatment regimen was completed (n= 4-5 mice per group). Each data point represents one animal (Mean ± SEM). ***$p<0.005$.