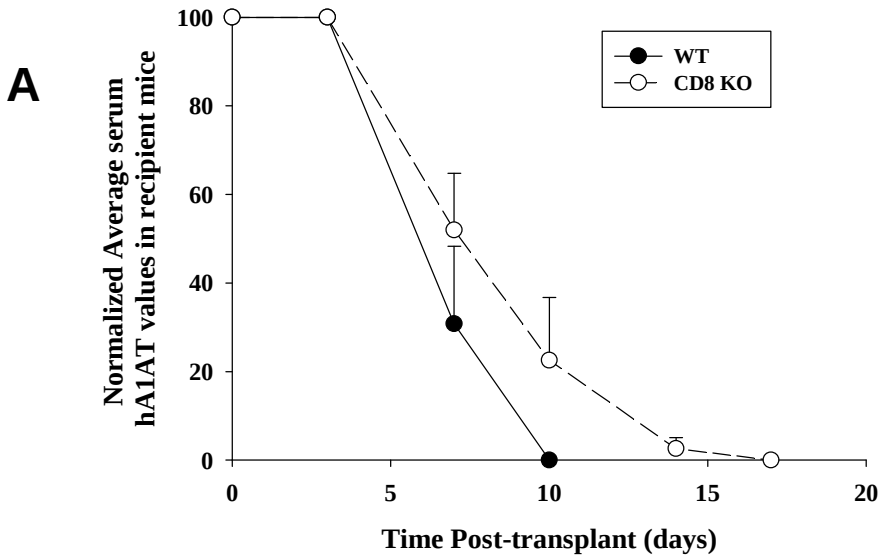
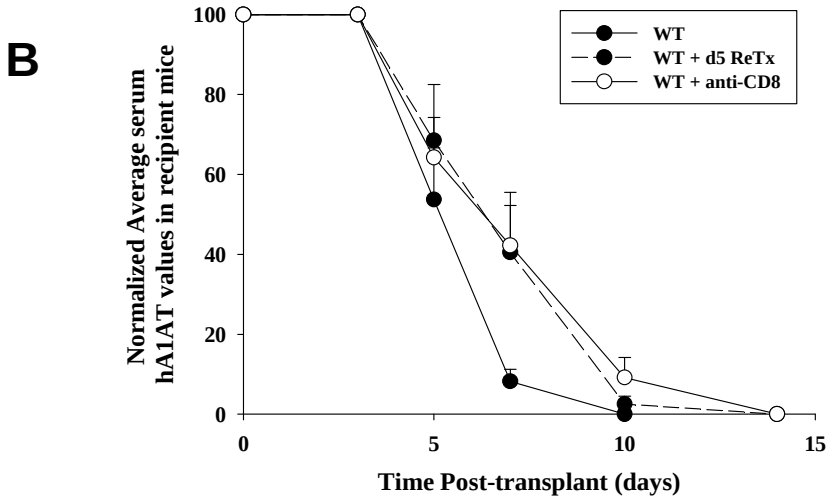
Supplemental Figure 1. Comparable antigen load in wild-type and CD8-deficient recipients. Wild-type and CD8 KO mice were transplanted with FVB/N hepatocytes. Serum hA1AT levels were serially analyzed to measure allogeneic hepatocellular graft survival. **A)** We found that there is no significant difference in hA1AT levels between our CD8 KO and wild-type recipients on day 7 following transplantation. **B)** Wild-type recipients that underwent a successive transplant on day 5 had similar hA1AT levels as a CD8-depleted wild-type mouse following a single transplant. **C)** However, this increased antigen exposure did not stimulate significantly enhanced alloantibody production in wild-type recipients.

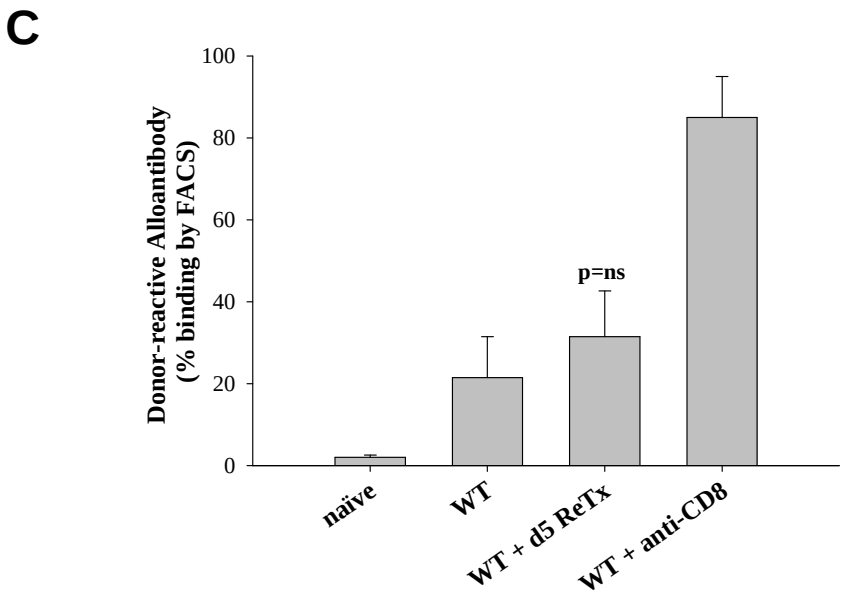
Supplemental Figure 2. ***CD8-deficient mice exhibit an IgG1 alloantibody response to transplantation.*** The serum from wild-type transplant recipient and CD8 KO transplant recipient mice was collected 14 days after hepatocyte transplantation and tested for total IgG antibody isotypes IgG1, IgG2a, IgG3, and IgE using ELISA. Fold measurements of the total IgG isotypes were quantified and compared to the serum from naïve control mice. Serum from wild-type transplant recipient mice contained significant levels of IgG1 alloantibody isotype as compared to naïve control serum (1.8±0.5 fold; $p=0.020$, as denoted by "*"). Serum from CD8 KO transplant recipient mice had a significant increase of the IgG1 alloantibody isotype (5.0±0.7 fold) compared to both serum from naïve and transplanted wild-type mice ($p<0.002$ for both comparisons, as denoted by "*" and "**", respectively). Serum from wild-type and CD8 KO recipients did not show significant levels of IgG2a, IgG3, or IgE. The graph depicts representative data of duplicate experiments. Standard deviations were calculated by 2 samples per experiments (triplicate wells/sample).

Supplemental Figure 3. ***IL-4 mRNA is upregulated in CD8 KO mice following transplantation.*** To examine the mRNA expression of IFN-γ and IL-4 in wild-type and CD8-deficient mice following hepatocyte transplantation, we performed semi-quantitative real-time PCR of recipient splenocytes. Splenocytes were harvested from recipient mice on day 5 and 7 post-transplant. **A)** IFN-γ mRNA was significantly upregulated in wild-type C57BL/6 recipients on day 5 and 7 (1.3±0.1 and 1.7±0.2 fold, respectively; $p<0.05$ for both days). CD8 KO recipients did not have a significant change in IFN-γ expression as compared to naïve control. **B)** IL-4 mRNA was significantly upregulated in CD8 KO recipients as compared to naïve control on day 5 and 7 (2.0±0.1 and 1.9±0.4 fold, respectively; $p<0.03$ for both days). These results were compared to wild-type recipient mice which have significantly decreased levels of IL-4 on post transplant days 5 and 7 (0.7±0.1 and 0.3±0.1 fold, respectively; $p<0.05$ for both). Significant upregulation or downregulation is denoted by "*". Data were expressed as the mean fold increase relative to cells collected form naïve control mice. All real-time PCR data were normalized to the level of mouse β-actin mRNA. Error bars denote the standard deviation of duplicate experiments (triplicate wells/sample).

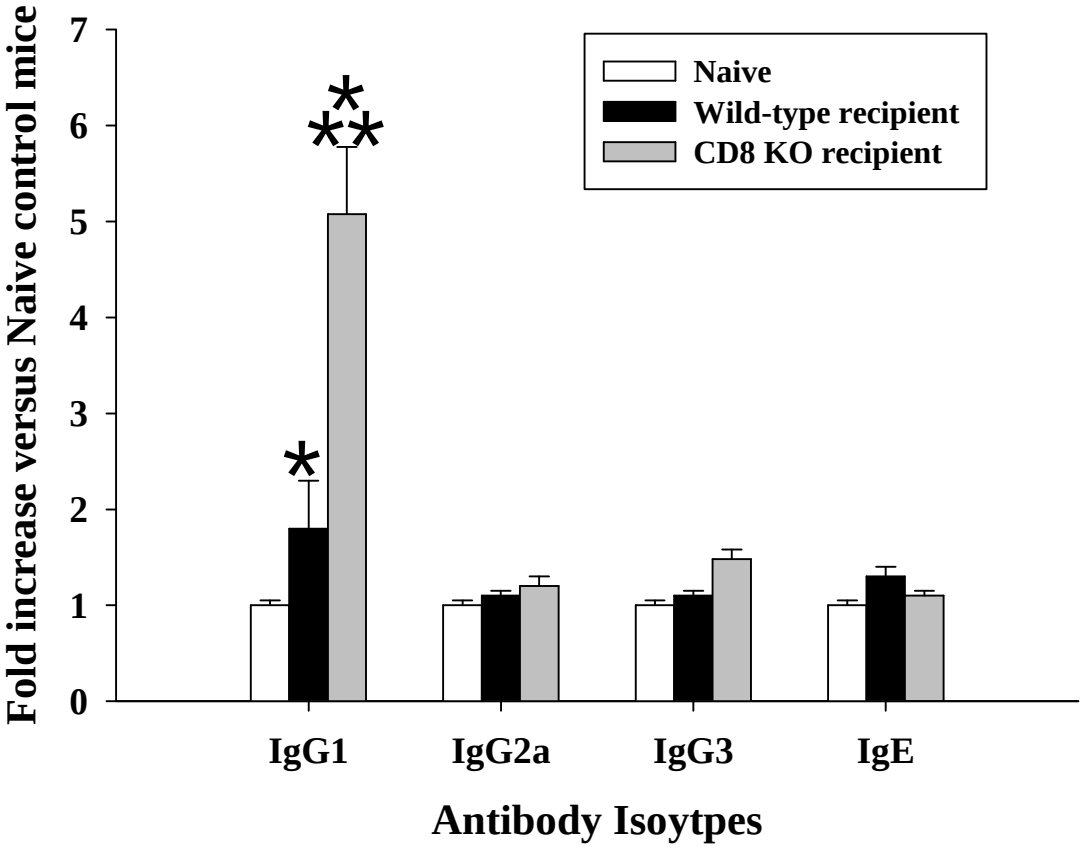
Supplemental Figure 1







Supplemental Figure 2



Supplemental Figure 3