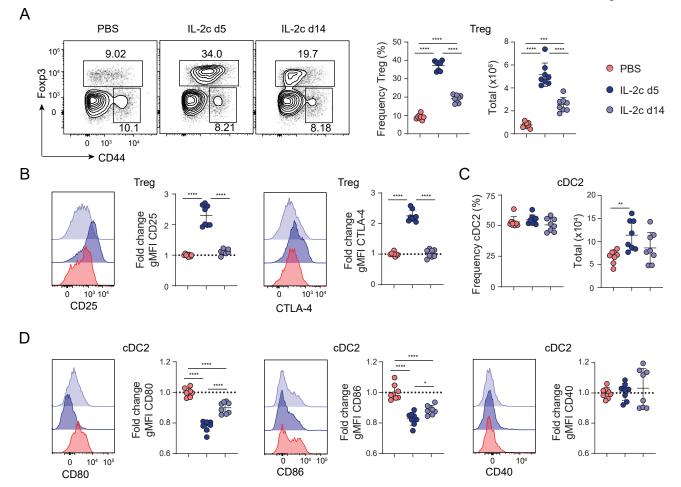


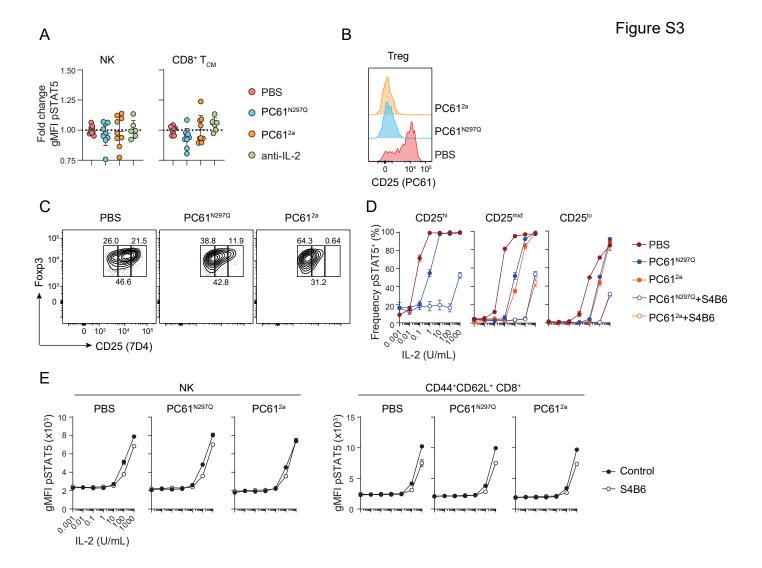
## Figure S1.

(A) Representative flow cytometric analysis of pSTAT5 in gated splenic Foxp3<sup>+</sup> Treg cells, NK cells, and CD44<sup>+</sup>CD62L<sup>+</sup> CD8<sup>+</sup> cells from WT B6 mice after stimulation in vitro with rIL-2. (B) Gating strategy to identify DCs in the spleen. (C) WT B6 mice were treated with PBS, PC61<sup>N297Q</sup>, PC61<sup>2a</sup>, or anti-IL-2 (JES6), and sacrificed for analysis after seven days. Graphical analysis of fold change gMFI over PBS controls of CD80, CD86 and CD40 in splenic cDC1 and moDC from all treatment groups. (D) WT B6 mice were treated IP with PBS, 150µg JES6 alone (no S4B6), 150µg S4B6 alone (no JES6), 150µg S4B6 and 150µg JES6, or 500µg JES6 and 150µg S4B6 on day 0 and day 5, and sacrificed on day 7 for analysis. Graphical analysis of fold change gMFI over PBS controls of CD80, CD86 and CD40 in gated splenic cDC2 cells from all treatment groups. Data is combined from two or three independent experiments, 6-9 mice per group total. Significance determined by one-way ANOVA with Tukey post-test for multiple comparisons. \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, \*\*\*\*p<0.0001.



## Figure S2.

WT B6 mice were treated IP with PBS or IL-2 complex (IL-2 and JES6) on day 0 and day 2, and sacrificed on day 5 or day 14 for analysis. (A) Representative flow cytometric analyses of Foxp3 and CD44 expression by gated splenic CD4<sup>+</sup> T cells. Foxp3<sup>+</sup> Treg cells are gated as indicated. Right, Graphical analysis of frequency and total number of splenic Treg cells in each treatment group. (B) Representative flow cytometry histograms of CD25 PC61 and CTLA-4 staining in Treg cells. Corresponding graphical analysis of fold change in gMFI over controls of CD25 PC61 and CTLA-4 staining by Treg cells in each treatment group. (C) Graphical analysis of frequency and total number of cDC2 in the spleen of each treatment group. (D) Representative flow cytometry histograms of CD80, CD86 and CD40 staining in cDC2. Corresponding graphical analysis of fold change in gMFI over controls of CD80, CD86 and CD40 staining by cDC2 in each treatment group. Data is combined from two independent experiments, 8 mice per group total. Significance determined by one-way ANOVA with Tukey post-test for multiple comparisons. \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, \*\*\*\*p<0.001



## Figure S3.

(A) WT B6 mice were treated IP with PBS, PC61<sup>N297Q</sup>, PC61<sup>2a</sup>, or anti-IL-2 (JES6), and sacrificed after seven days for analysis. (A) Graphical analysis of fold change in gMFI over controls of pSTAT5 in NK and CD44<sup>+</sup>CD62L<sup>+</sup> CD8<sup>+</sup> cells in each treatment group. Data is combined from three independent experiments, 6-9 mice per group total. Significance determined by one-way ANOVA with Tukey post-test for multiple comparisons. \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, \*\*\*\*p<0.0001. (B-E) WT B6 mice were treated IP with PBS, PC61<sup>N297Q</sup> or PC61<sup>2a</sup> and sacrificed after 24 hours. (B) Representative flow cytometry histograms of CD25 (PC61) staining on Treg cells. (C) Representative flow cytometry analysis of CD25 (7D4) staining on gated Treg cells, and gates defining CD25hi, CD25mid and CD25lo cells are shown. (D) Graphical analysis of frequency of pSTAT5+ Treg cells in response to in vitro IL-2 +/- S4B6 in each in vivo treatment group (PBS, PC61<sup>N297Q</sup> or PC61<sup>2a</sup>) as indicated. (E) Graphical analysis of gMFI pSTAT5 NK or CD44<sup>+</sup>CD62L<sup>+</sup> CD8<sup>+</sup> cells in response to in vitro rIL-2 +/- S4B6 in each in vivo treatment group (PBS, PC61<sup>N297Q</sup> or PC61<sup>2a</sup>) as indicated. (E) Graphical analysis of gMFI pSTAT5 NK or CD44<sup>+</sup>CD62L<sup>+</sup> CD8<sup>+</sup> cells in response to in vitro rIL-2 +/- S4B6 in each in vivo treatment group (PBS, PC61<sup>N297Q</sup> or PC61<sup>2a</sup>) as indicated. (E) Graphical analysis of gMFI pSTAT5 NK or CD44<sup>+</sup>CD62L<sup>+</sup> CD8<sup>+</sup> cells in response to in vitro rIL-2 +/- S4B6 in each in vivo treatment group (PBS, PC61<sup>N297Q</sup> or PC61<sup>2a</sup>). Data is from one representative experiment, with three technical replicates per condition. Experiments were repeated independently at least three times.