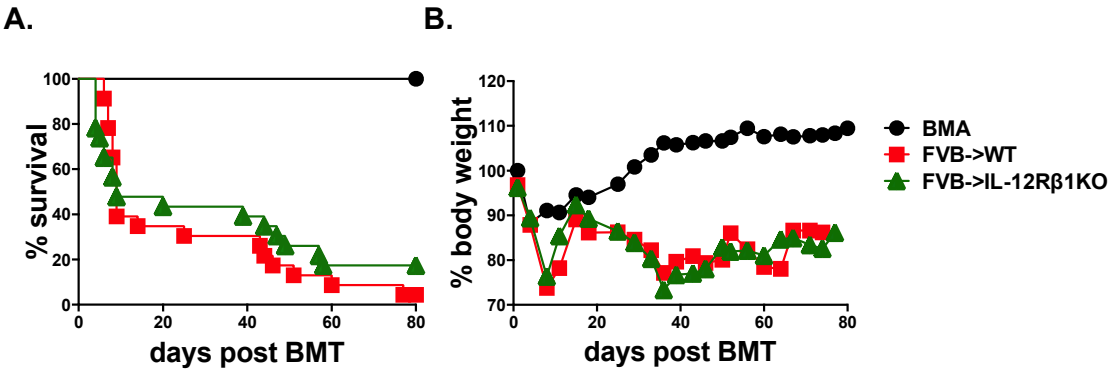

Fig S1. IL-12Rβ1 in recipients does not impact aGVHD development. Lethally irradiated WT and IL-12Rβ1KO B6 mice (1100cGy) were transplanted with $5x10^6$ TCD-BM alone (BMA, n=4) or plus $1x10^6$ purified T cells isolated from FVB mice (9 mice per group). Recipients were monitored for (A) survival and (B) body weight loss until 80 days post BMT. Data shown are from 5 repeated experiments.

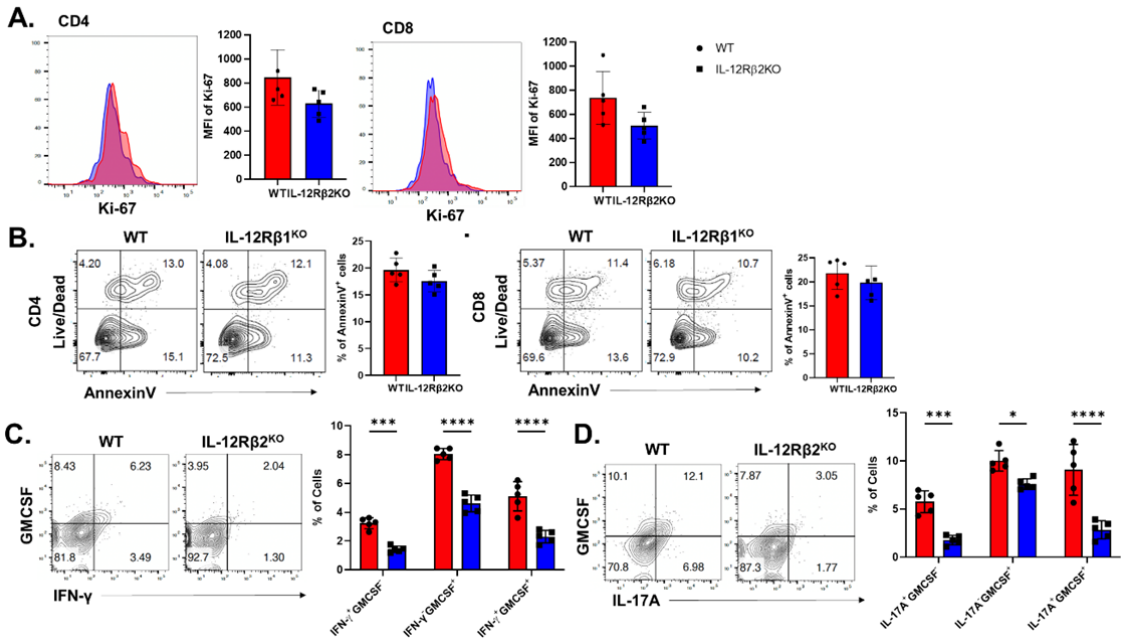

Fig S2. IL-12Rβ2 in recipients does not impact T cell proliferation and apoptosis while it increases the cytokine production of donor T cells. Lethally irradiated WT and IL-12Rβ2KO B6 mice (1200cGy) were transplanted with $5x10^6$ TCD-BM plus $0.75x10^6$ purified T cells isolated from FVB mice. Recipient intestines were harvested on day 14 after BMT and analyzed with flow cytometry. Representative histogram and MFI of Ki-67 in $CD4^+$ or $CD8^+$ T cells are shown (A). Representative flow dot and the percentage of Annexin V are shown (B). Average frequencies of IFN-γ+, IL17A+, and GM-CSF+ among gated donor CD4+ T cells are shown (C and D). The experiments were repeated 3 independent times. 5 mice per group were used in each experiment. * $p < 0.05$, ***$p < 0.001$ and ****$p < 0.0001$.

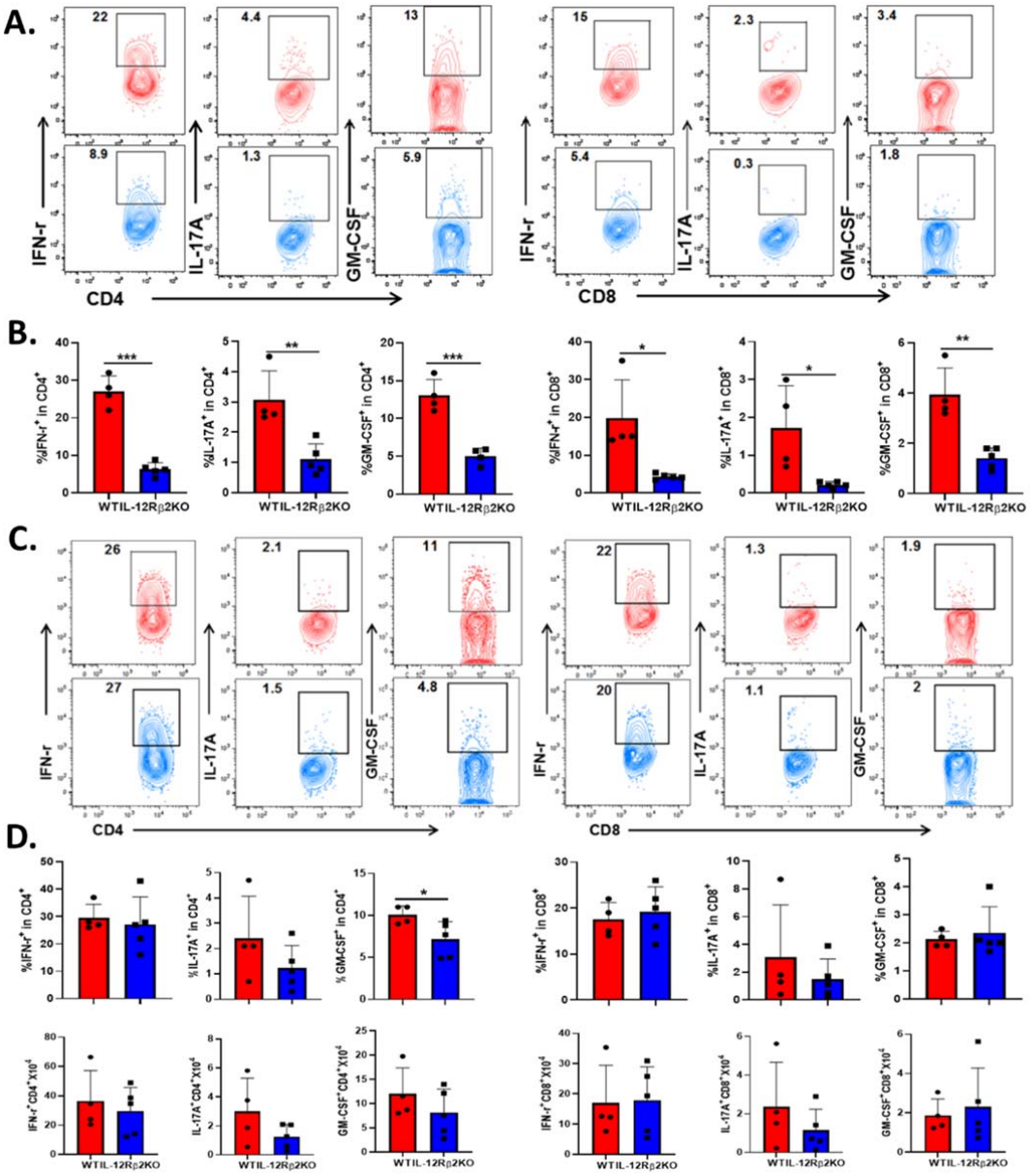

Fig. S3. IL-12Rβ2 promotes cytokine production in donor T cells in recipient mLNs and spleen. Lethally irradiated WT and IL-12Rβ2KO B6 mice underwent BMT with $5x10^6$ TCD-BM from FVB mice (Thy1.1$^+$) alone (BMA) or plus splenocytes (equal to $0.5x10^6$ T cells) from FVB mice (Thy1.2$^+$). Recipient mLNs and spleen were collected on day 14 after BMT and analyzed with flow cytometry. Representative flow dot plots and average frequencies and absolute counts of IFN-γ$^+$, IL17A$^+$, and GM-CSF$^+$ among gated donor CD4$^+$ or CD8$^+$ T cells from mLN (A and B) or spleen (C and D) are shown. The experiments were repeated 3 independent times. 4-5 mice per group were used for each experiment. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$.

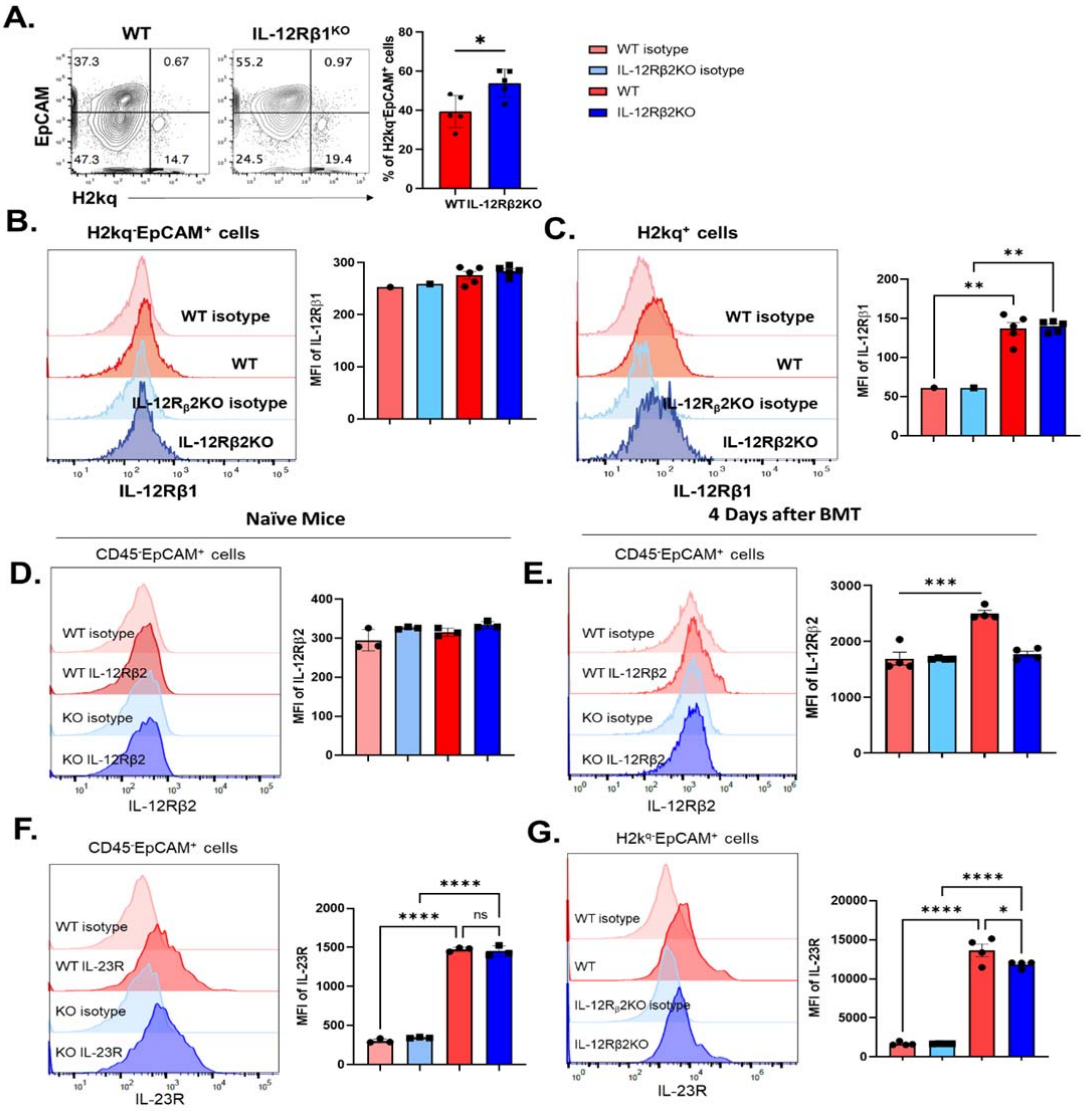

Fig S4. Expression of IL-12Rβ2 on host and donor cells in recipient intestines. Lethally irradiated WT and IL-12Rβ2KO B6 mice (1200cGy) were transplanted with $5x10^6$ TCD-BM plus $0.75x10^6$ purified T cells isolated from FVB mice. Recipient intestines were harvested on day 14 after BMT and analyzed with flow cytometry. Representative flow figure and percentage of $H2K^qEpCAM^+$ IECs are shown (A). Representative histogram and MFI of IL-12Rβ2 in IEC (B) and infiltrated donor cells (C) are shown. IECs were isolated from unmanipulated WT and IL-12Rβ2KO B6 mice and tested the expression of IL-12Rβ2 (D) and IL-23R (F). WT and IL-12Rβ2KO B6 mice were irradiated (1200cGy) and transplanted with 5×10^6 splenocyte from FVB mice. Four days after BMT, IECs were isolated for flow cytometry analysis. Expression of IL-12Rβ2 (E) and IL-23R (G) in IECs were shown. The experiments were repeated 3 independent times. 3-5 mice per group were used in each experiment.

* $p < 0.05$, **$p < 0.01$ and ***$p < 0.001$.