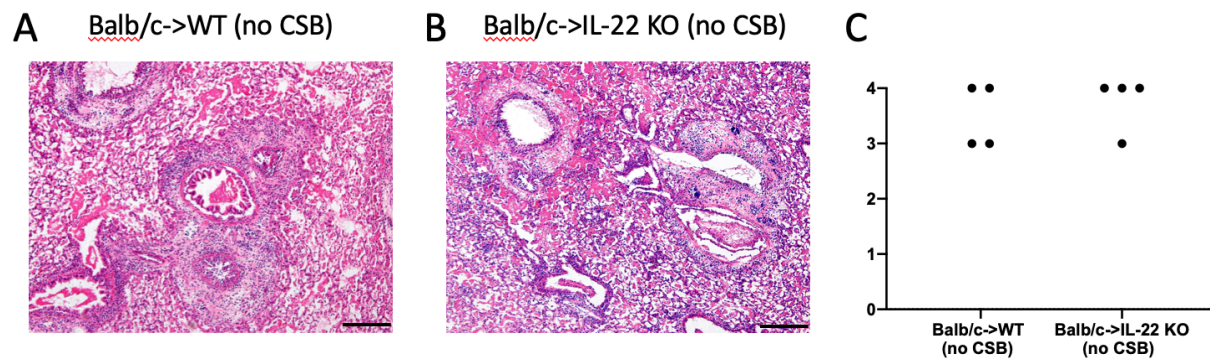
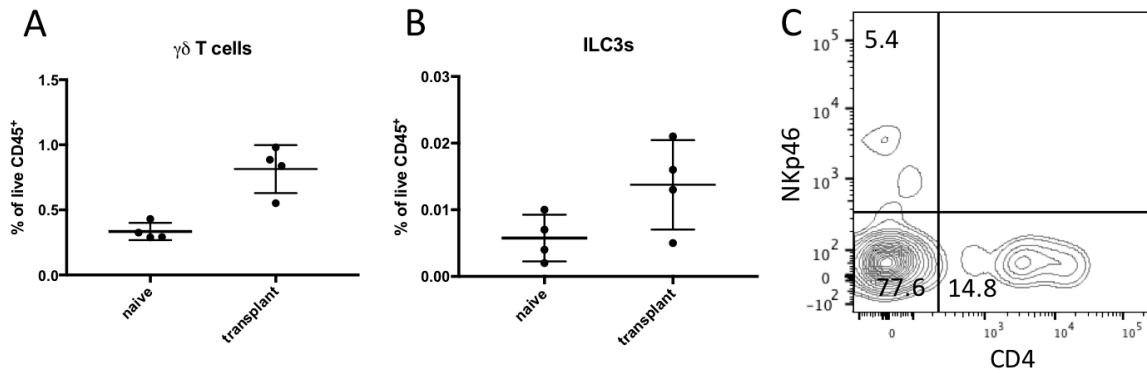


## Supporting Information

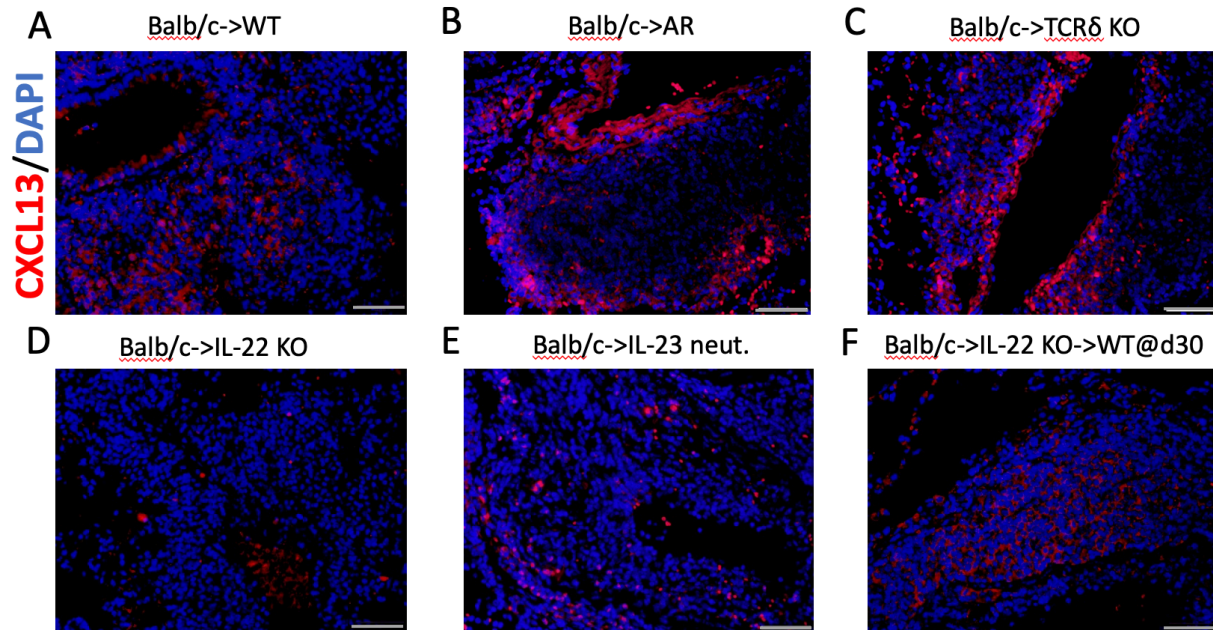
### Supplemental figures and figure legends



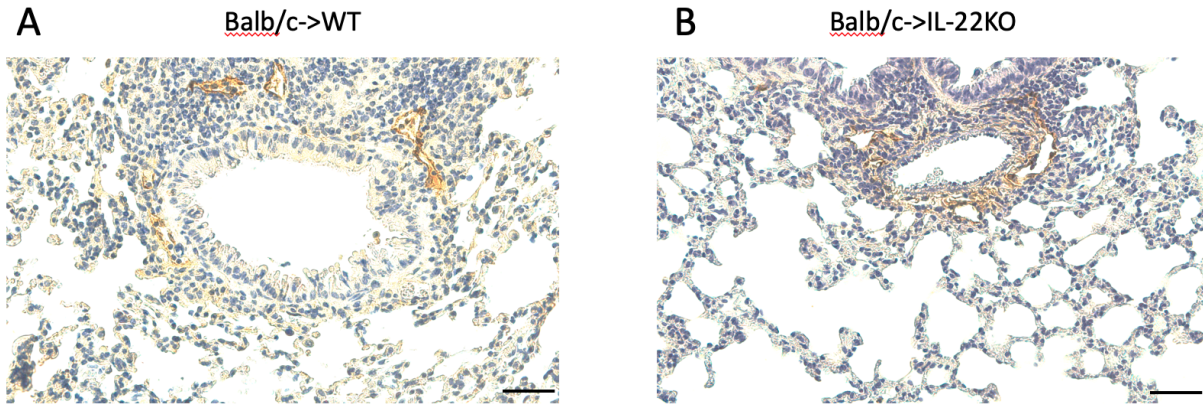
**Supplemental Figure 1 – IL-22 deficiency does not prevent allograft rejection.** Histological appearance of Balb/c lung allografts 14 days after transplantation without costimulatory blockade (CSB) into (A) B6 wildtype and (B) B6 IL-22-deficient mice. Scale bars: 100 $\mu$ M. (C) Rejection grades (ISHLT Grade A) of the two conditions. n=4 each. p=ns.



**Supplemental Figure 2:**  $\gamma\delta$  T cells and ILC3s infiltrate lung allografts during tolerance induction. Percentage of (A)  $\gamma\delta$  T cells and (B) ILC3s among live (CD45.1<sup>+</sup>) cells in naïve (B6 CD45.1<sup>+</sup>) and Balb/c CD45.2<sup>+</sup> lung grafts 7 days after transplantation into B6 CD45.1<sup>+</sup> recipients that were treated with peri-operative costimulatory blockade (n=4). (C) ILC3 populations in a tolerant lung allograft reveals the presence of Natural Cytotoxicity Receptor (NCR)<sup>+</sup> ILC3s (CD4<sup>-</sup>NKp46<sup>+</sup>), double-negative ILC3s (CD4<sup>-</sup>NKp46<sup>-</sup>) and CD4<sup>+</sup> ILC3s (CD4<sup>+</sup>NKp46<sup>-</sup>). Plots are gated on live, single CD45.1<sup>+</sup>CD3<sup>-</sup>CD19<sup>-</sup>CD127<sup>+</sup>CD90<sup>+</sup>ROR $\gamma$ t<sup>+</sup> cells.



**Supplemental Figure 3** – CXCL13 expression within intragraft lymphoid follicles depends on IL-22. Representative immunofluorescent staining of CXCL13 (red) in Balb/c lung allografts 30 days after transplantation into (A) wildtype (WT), (B) AR mice ( $ROR\gamma t\text{-cre Ahr}^{fl/fl}$ ), (C)  $\gamma\delta$  T cell-deficient ( $TCR\delta^{-/-}$ ), (D) IL-22 deficient, and (E) IL-23 neutralized mice. Recipients were treated with peri-operative costimulatory blockade for all conditions. (F) CXCL13 (red) 30 days after retransplantation of IL-22 deficient lung grafts into a wildtype secondary host. Scale bars: 100 $\mu$ M.



**Supplemental Figure 4** – CCL21 expression within intragraft lymphoid follicles does not depend on recipient IL-22. Representative immunostaining of CCL21 (brown) in Balb/c lung allografts 30 days after transplantation into (A) wildtype (WT) or (B) IL-22 deficient mice. Recipients were treated with peri-operative co-stimulatory blockade for all conditions. Scale bars: 100 $\mu$ M.