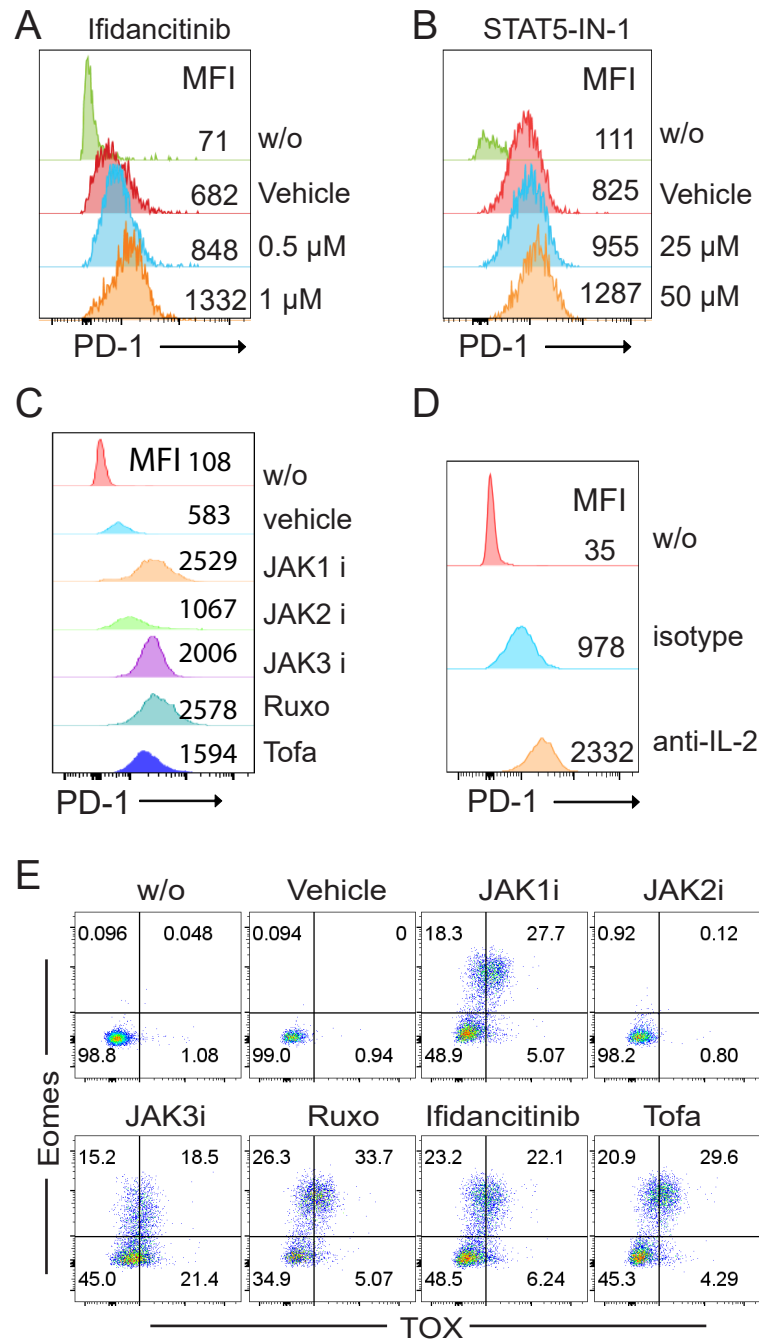


## Supplementary Figure 4



**Supplementary Figure 4.**  $\gamma$ c cytokines regulated effector T cell exhaustion. CD4 T cells were treated as in **Figure 5**. **(A)** to **(D)** Representative FACS plots showing the expression of PD-1 on T cells after treated with increasing dose of Ifidancitinib in **(A)**, or treated with increasing dose of STAT5 inhibitor in **(B)**, or treated with 1  $\mu$ M of individual JAK inhibitors in **(C)**, or treated with 20  $\mu$ g/ml indicated individual neutralizing mAbs in **(D)**. **(E)** The expression of Eomes and TOX in CD4<sup>+</sup> T cells was measured by FACS after treated with 1  $\mu$ M of JAK1i (Itacitinib), JAK2i (Fedratinib), JAK3i (Ritlecitinib), JAK1/2-selective inhibitor Ruxolitinib (Ruxo), Ifidancitinib, or pan-JAK inhibitor Tofacitinib (Tofa).