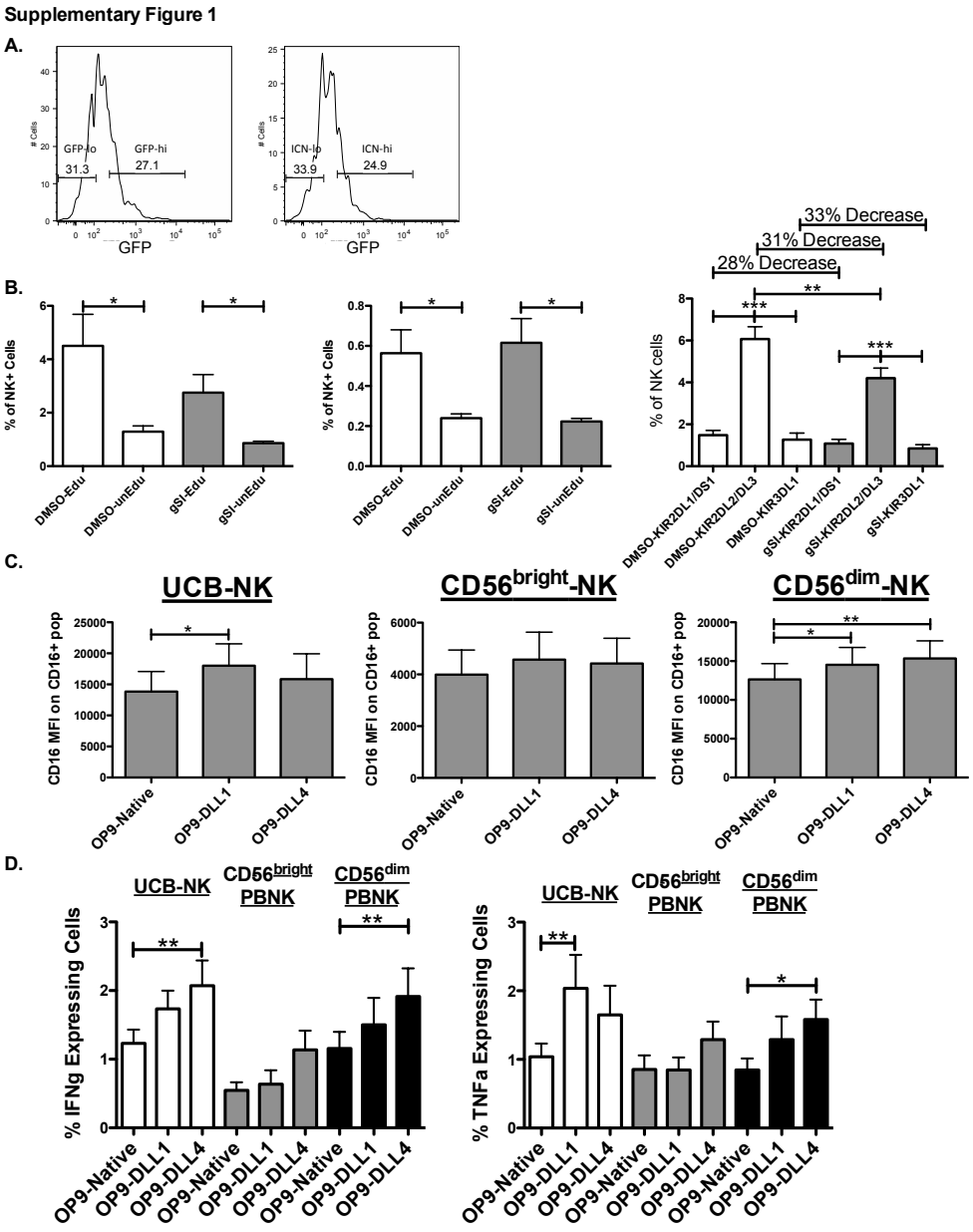
Supplementary Figures:



Supplementary Figure 1

(A) UCB CD34-derived NK cells were harvested at day 28, transduced with minicircles expressing GFP alone or GFP plus the active intracellular portion of Notch (ICN), and cultured for 7 days with 10 ng/ml IL-15. Representative histograms of GFP gating strategy on GFP alone (left) or GFP plus ICN (right) transduced samples at the time of harvest. (B) Donors were HLA typed and then $CD56^{dim}$ NK cells were sorted from PBMCs and placed in culture for 7 days with IL-15 and DMSO (white bars) or 20 uM gSI (grey bars). Single KIR expression for presence (Edu) or absence (unEdu) of self-HLA is displayed for all single KIR (left panel) or single KIR excluding NKG2A (center

panel). Only donors containing at least one uneducated KIR were included in analysis (n = 6). Individual KIR expression (right panel) is also displayed (n = 8). (C) CD16 MFI was assessed on the $CD16^{+}$ population of NK cells from (left) day 21 UCB CD34-derived NK cells (n = 4), (center) PBMC sorted $CD56^{bright}CD3^{-}KIR^{-}$ NK cells (n = 8), and (right) PBMC sorted $CD56^{dim}CD3^{-}KIR^{-}$ NK cells (n = 8) after co-culture with 10 ng/ml IL-15 and OP9-Native, OP9-DLL1, or OP9-DLL4 cells for 7 days. (D) UCB CD34-derived NK cells (white bars (n = 15), sorted $CD56^{bright}KIR^{-}$ PBNK cells (grey bars (n =7)), and sorted $CD56^{dim}KIR^{-}$ PBNK cells (black bars (n = 11)) were cultured with 10 ng/ml IL-15 and OP9-N, OP9-DL1, or OP9-DL4 cells for 7 days. Cells were then cross-linked with mouse anti-human CD16 and analyzed for intracellular IFNγ (left panel) or TNFα (right panel) five hours after cross-linking.