

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: **(1a)** Shows the list of 892 genes that are differentially expressed in WT splenic NK cells during maturation. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells. **(1b)** 462 genes are differentially expressed in WT NK cells during the CD11b⁻CD27⁺ to CD11b⁺CD27⁺ transition. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells. **(1c)** 678 genes are differentially expressed in WT NK cells during the CD11b⁺CD27⁺ to CD11b⁺CD27^{low} transition. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells. **(1d)** 357 genes are differentially expressed between WT NK *Stat5* DKI CD11b⁺CD27^{low} NK cells. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells. **(1e)** List of 7470 genes whose expression levels are not significantly changed ($FC < 1.5$) in WT NK cells during maturation. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells. **(1f)** List of 82 genes encoding transcription factors whose expression is altered ($FC > 1.5$) in *Stat5* DKI NK cells. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells. **(1g)** List of 77 genes encoding cytokines, chemokines, their receptors, and NK receptors whose expression is altered ($FC > 1.5$) in *Stat5* DKI NK cells. Their expression levels are shown in the indicated populations of WT and *Stat5* DKI NK cells.

File Name: Supplementary Data 2

Description: **(2a)** IL-15-regulated genes in WT and *Stat5* DKI NK cells. **(2b)** Genes whose expression levels are significantly altered in *Stat5* DKI NK cells in response to IL-15 stimulation. **(2c)** Genes whose expression levels are not significantly changed in WT and *Stat5* DKI NK cells in response to IL-15 stimulation.

File Name: Supplementary Data 3

Description: **(3a)** List of genes that contain STAT5 tetramer binding sites in NK cells. **(3b)** STAT5 tetramer regulated genes in NK cells.