

Supplementary Fig. 1A. Gating strategy. Left panel: forward (FSC) sideward scatter (SSC) dot plot. Cells were gated on peripheral blood lymphocytes (PBLs, gate A) based on characteristic FS and SS properties. Middle panel: dot plot showing CD45 staining (y-axis) *versus* SS within gate A as determined by characteristic FSC and SSC properties. Right panel: dot plot showing CD3 (x-axis) and CD56 (y-axis) staining within gate B (CD45⁺ PBLs). Gate C: NK cells (CD3⁻CD56⁺); gate D: CD56^{bright} NK cells (CD3⁻CD56^{bright}); gate E: T cells (CD3⁺CD56⁺); gate F: CD56⁺ T cells (CD3⁺CD56⁺). **1B.** Frequencies of CD56^{bright} NK cells within NK cells (gate C) of RA patients, PsA patients and HD. Lines represent the median percentages,

1B. Frequencies of CD56^{thigh} and CD56^{thigh} NK cells within NK cells (gate C) of RA patients, PsA patients and HD. Lines represent the median percentages, boxes indicate 25th and 75th percentiles, and outer whiskers indicate the most extreme data points.



Supplementary Fig. 2A. Gating strategy. Dot plots showing from left to right: peripheral blood lymphocytes (PBLs) gated on the basis of characteristic FSC and SSC properties; selection of singlets; exclusion of dead cells on the basis of positive staining for eF780 Fixable Viability Dye; NK cell gate. **2B.** NKG2A/KIR NK subsets gating strategy. Subsets were defined as NKG2A⁻/KIR⁻ (gate A), NKG2A⁺/KIR⁻ (gate B), NKG2A⁺/KIR⁺ (gate C), NKG2A⁻/KIR⁺ (gate C), NKG2A⁻/KIR⁺ (gate D) within the NK cell gate.

2C. NKG2A/KIR NK subsets frequency in HD, RA NKG2A*high* and RA NKG2A*norm* patients. Columns represent the mean percentage of the mean of triplicate measurements in each HD/patient; error bars show the standard error of the mean (SEM).