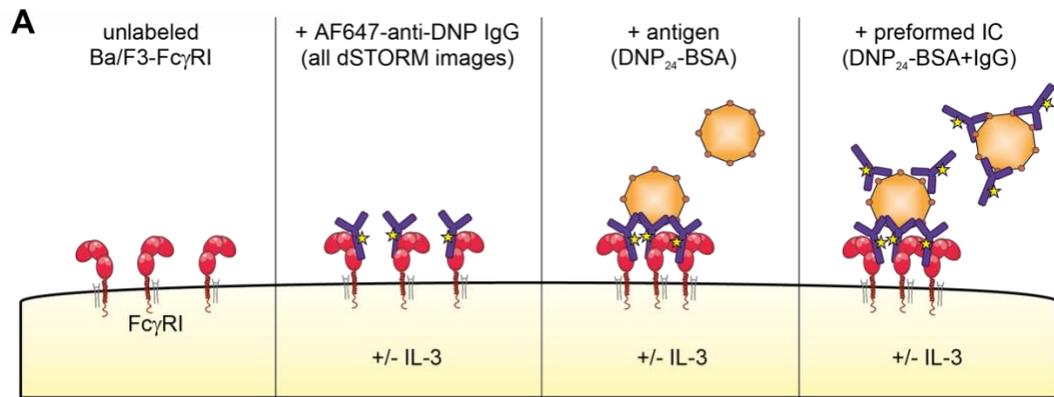
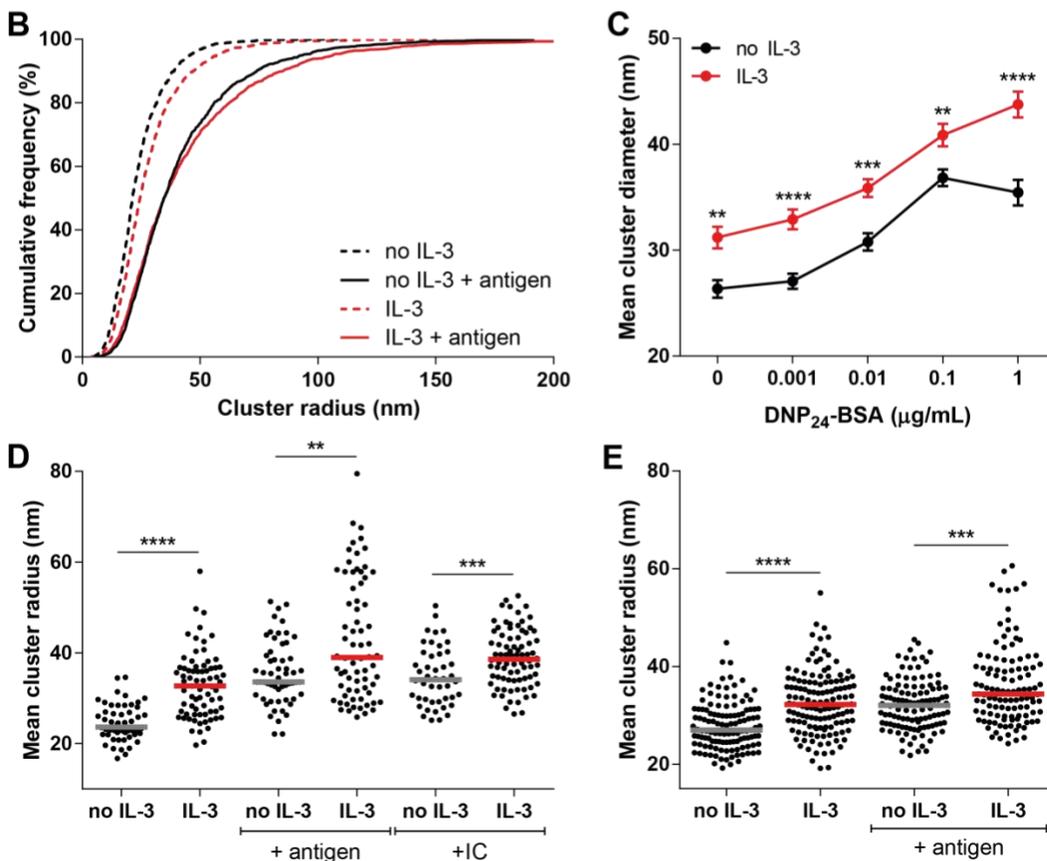


**Supplementary Figure 1. Fc $\gamma$ RI surface expression does not change after IL-3 stimulation.** (A) Flow cytometry analysis of the binding of increasing concentrations of monomeric anti-DNP IgG to Ba/F3-Fc $\gamma$ RI cells after IL-3 stimulation. Mean fluorescence intensity (MFI) data are representative of 3 independent experiments. (B) Confocal microscopy analysis of Fc $\gamma$ RI distribution in labeling Ba/F3-Fc $\gamma$ RI cells. Two images for each condition are representative of 2 independent experiments. Scale bar, 5  $\mu$ m.

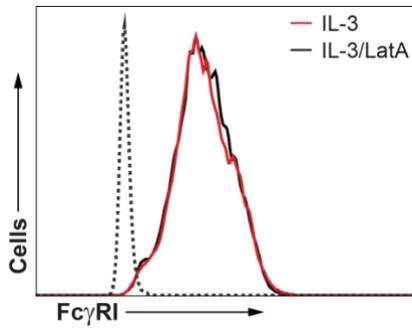


Super-resolution imaging conditions

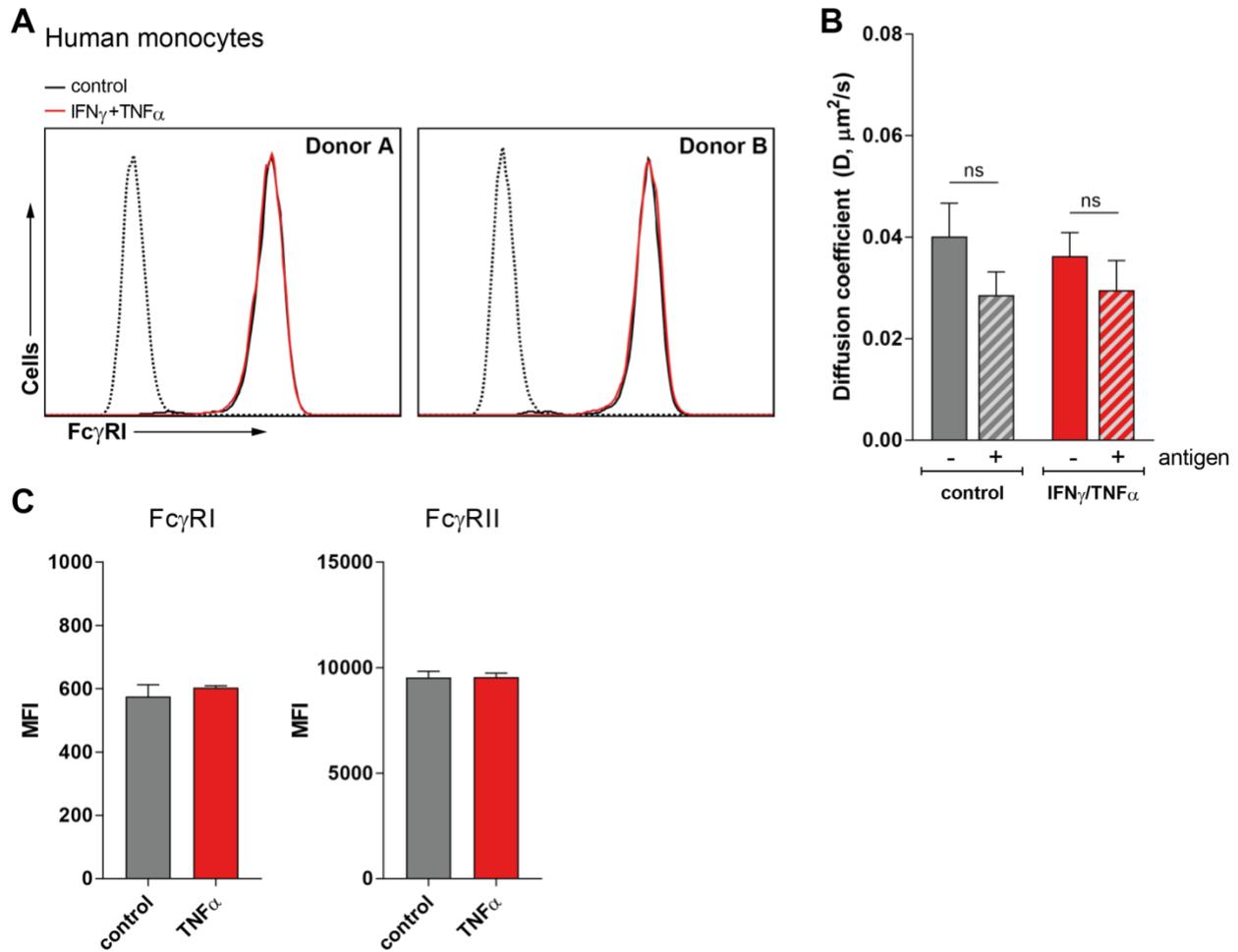


**Supplementary Figure 2. Fc $\gamma$ RI clustering increases after cytokine stimulation.** (A) Schematic overview of the dSTORM super-resolution microscopy imaging conditions. (B and C) dSTORM analysis of AF647-labeled anti-DNP IgG on Ba/F3-Fc $\gamma$ RI cells stimulated as indicated. Fc $\gamma$ RI-bound IgG clusters were identified by DBSCAN analysis and the cumulative distribution of cluster sizes for all identified Fc $\gamma$ RI clusters in (see Fig. 2C) were calculated (B). Data are representative of the analysis of 20-30 cells per condition analysed within several regions of interest (ROIs) per cell from 3 independent experiments, resulting in >1500 cluster sizes per condition. Fc $\gamma$ RI cluster sizes at different DNP<sub>24</sub>-BSA concentrations (C) data are means  $\pm$  SEM of ROIs of 15-20 cells per condition pooled from 2 independent experiments. (D) dSTORM analysis of AF647-labeled anti-DNP IgG on Ba/F3-Fc $\gamma$ RI cells stimulated with IL-3, DNP antigen or preformed IC, as indicated. Mean radius cluster and median data are from the analysis of 3-5

ROIs on 8-12 cells per condition from 2 independent experiments. (E) dSTORM analysis of AF647-labeled anti-TNP human IgG1 on Ba/F3-Fc $\gamma$ RI cells stimulated as indicated. Mean cluster radius per ROI with medians are from the analysis of 8-11 cells per condition from 2 independent experiments. \*\*P<0.01, \*\*\*P<0.001, \*\*\*\*P<0.0001 by Mann-Whitney U test.



**Supplementary Figure 3. Fc $\gamma$ RI surface expression does not change after latrunculin A pretreatment.** Flow cytometry analysis of Fc $\gamma$ RI expression on Ba/F3-Fc $\gamma$ RI cells after 1 hour IL-3 stimulation, with (IL-3/LatA) and without (IL-3) pretreatment of 0.1  $\mu$ g/mL latrunculin A. Dotted line represents the isotype control. Histograms are representative of 3 independent experiments.



**Supplementary Figure 4. Fc $\gamma$ RI expression does not change after cytokine stimulation of human myeloid cells.** (A) Flow cytometry analysis of Fc $\gamma$ RI expression on CD14<sup>high</sup> monocytes within PBMCs from two healthy donors stimulated with cytokines (IFN $\gamma$ +TNF $\alpha$ ) as indicated. Dotted line represents the isotype control. Histograms are representative of 2 independent experiments. (B) Single particle tracking (SPT) by microcopy analysis of the movement of QD655-labeled anti-DNP IgG on live human monocytes stimulated with cytokines (IFN $\gamma$ +TNF $\alpha$ ) and with and without antigen (DNP<sub>24</sub>-BSA) to induce IC as indicated. Diffusion coefficients for QD655-labeled IC mobility were calculated using mean square displacement (MSD) analysis of individual SPT trajectories. Data are representative of the analysis of >33 cells per condition from 2 independent experiments. (C) Flow cytometry analysis of Fc $\gamma$ RI and Fc $\gamma$ RII expression on isolated neutrophils after TNF $\alpha$  stimulation for 4 hours. Data are mean fluorescence intensity (MFI)  $\pm$  SD representative of 3 independent experiments. ns: not significant by Student's t test.