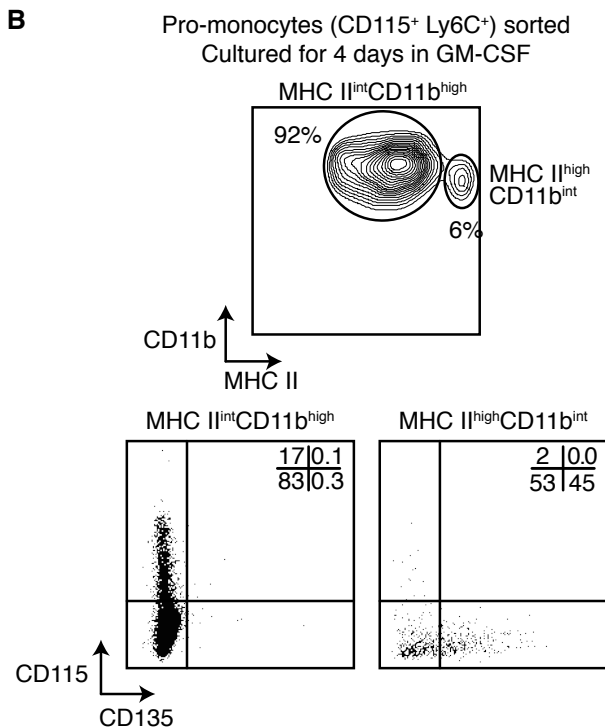
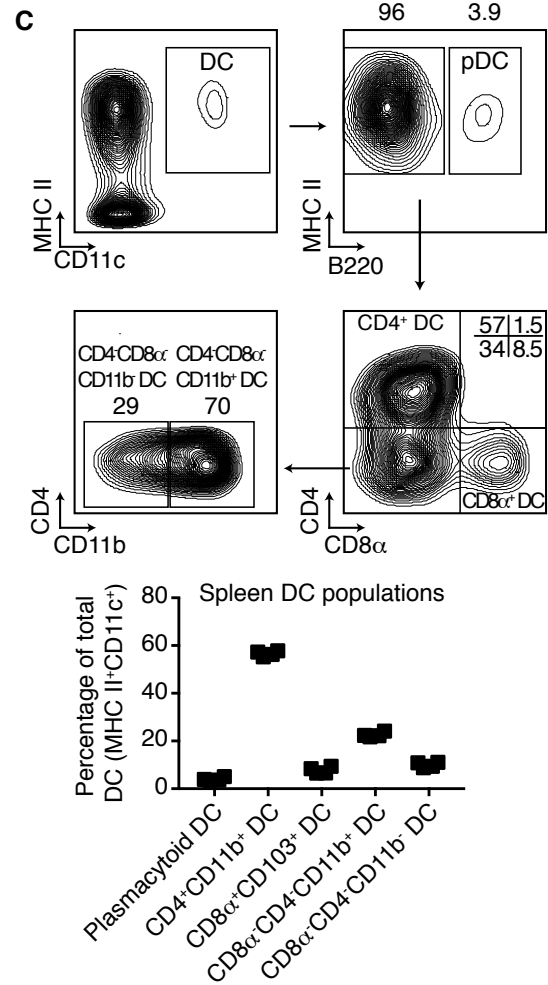
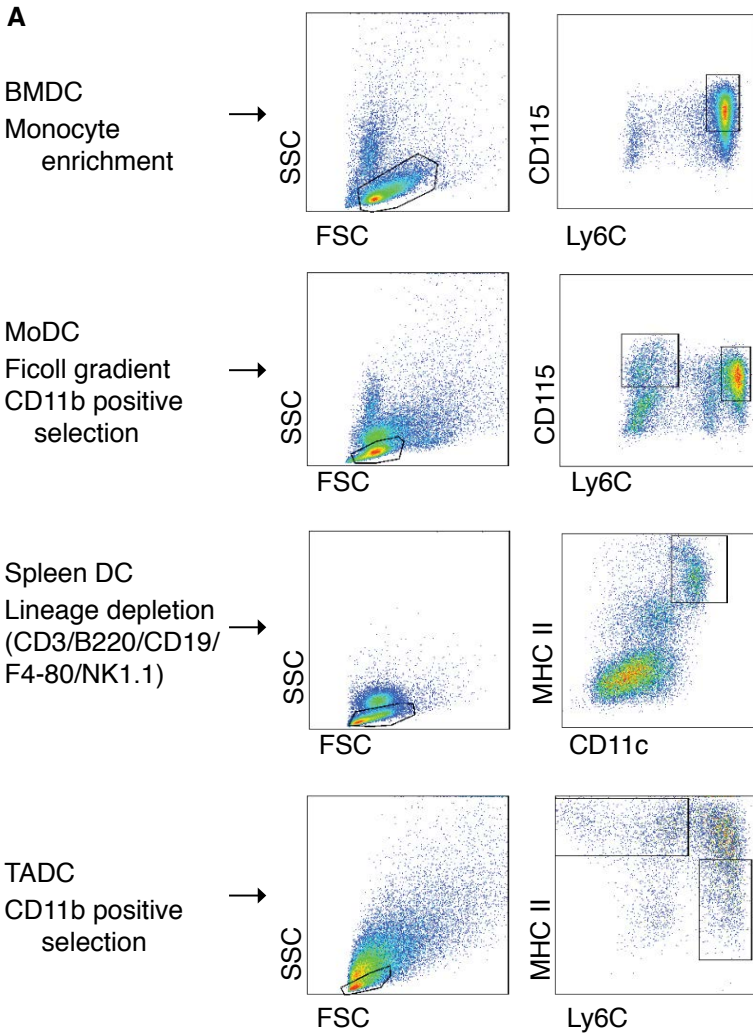
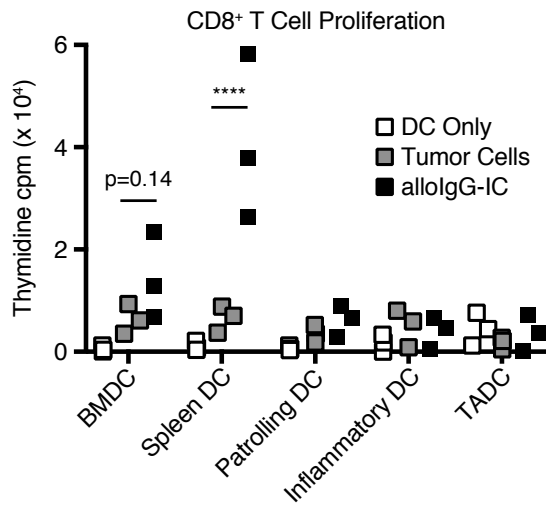


**Supplementary Figure 1**



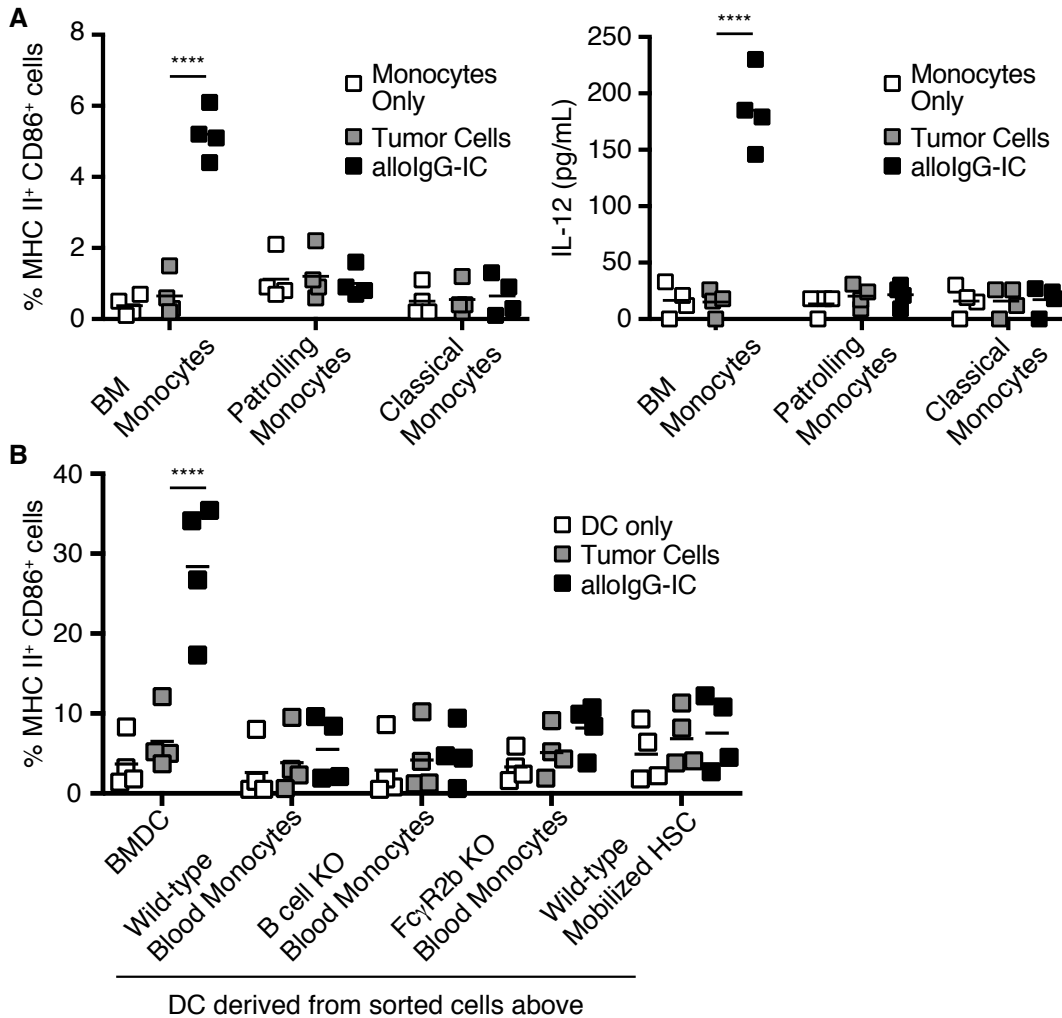
**DC isolation, sorting and culturing.** (A) Bone marrow monocyte-derived DC (BMDC) were initially enriched using EasySep negative selection kits followed by sorting FSC<sup>low</sup>/SSC<sup>low</sup>/Ly6C<sup>+</sup>/CD115<sup>+</sup> pro-monocytes. Blood monocyte-derived DC (MoDC) were initially enriched from PBMC using Miltenyi CD11b positive selection kit, or EasySep negative selection kits followed by sorting FSC<sup>low</sup>/SSC<sup>low</sup>/Ly6C<sup>+</sup>/CD115<sup>+</sup> cells. Cells were then cultured for 4-5 days with 50ng/mL GM-CSF. Spleen DC were enriched using Miltenyi's Pan-Dendritic Cell negative selection kit followed by FACS sorting of FSC<sup>low</sup>/SSC<sup>low</sup>/CD11c<sup>+</sup>/MHC II<sup>high</sup> cells and were used immediately in subsequent assays. Tumor-associated DC (TADC) were enriched by Miltenyi CD11b positive selection kit followed by FACS sorting FSC<sup>low</sup>/SSC<sup>low</sup>/Ly6C<sup>neg</sup>/CD11c<sup>+</sup>/MHC II<sup>high</sup> cells. Cells were used fresh or were cultured for 4-5 days with GM-CSF prior to their activation. (B) Standard BMDC preparation resulting from cell sorting of pro-monocytes followed by culture for 4-5 days in GM-CSF. (C) Standard yield of DC populations from the spleen using mechanical disruption through a cell strainer. Arrows denote sequential gating.

## Supplementary Figure 2



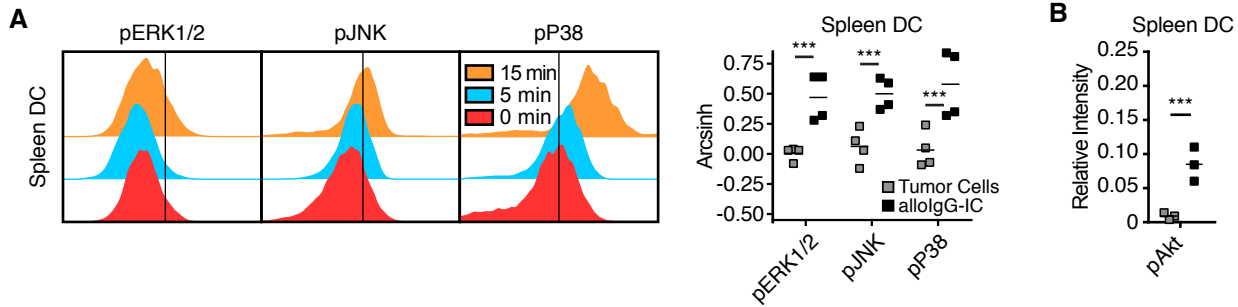
**BMDC activated with alloIgG-IC induce only minimal CD8<sup>+</sup> T cell proliferation. Related to Figure 2D.** Bone marrow DC (BMDC), patrolling blood monocyte-derived DC (Patrolling DC), inflammatory blood monocyte-derived DC (Inflammatory DC), or tumor-associated DC (TADC) subsets were activated with 129/Sv allogeneic IgG-B16 tumor cell immune complexes (alloIgG-IC) overnight, washed, and incubated with splenic CD8<sup>+</sup> T cells, which were assessed for proliferation rates. Statistical significance was determined by two-way ANOVA with Tukey's multiple comparisons test. \* denotes  $p < 0.05$ , \*\* denotes  $p < 0.01$ , \*\*\* denotes  $p < 0.001$ , \*\*\*\* denotes  $p < 0.0001$ .

**Supplementary Figure 3**



**Similar to BMDC, bone marrow monocytes are directly activated by allIgG-IC, while blood monocytes are not. Related to Figures 3A&B.** (A) Flow cytometry analysis of MHC II and CD86 expression on DC subsets, including bone marrow monocyte-derived DC (BMDC), following overnight incubation with 129/Sv allogeneic IgG-B16 tumor cell immune complexes (allIgG-IC). Graphs show the percentages of cells expressing both MHC II and CD86 and the levels of IL-12 in the supernatants. (B) Percentages of DC, including mobilized hematopoietic stem cell (HSC)-derived DC, expressing both MHC II and CD86 following overnight incubation with allIgG-IC. Statistical significance was determined by two-way ANOVA with Tukey's multiple comparisons test. \* denotes  $p < 0.05$ , \*\* denotes  $p < 0.01$ , \*\*\* denotes  $p < 0.001$ , \*\*\*\* denotes  $p < 0.0001$ .

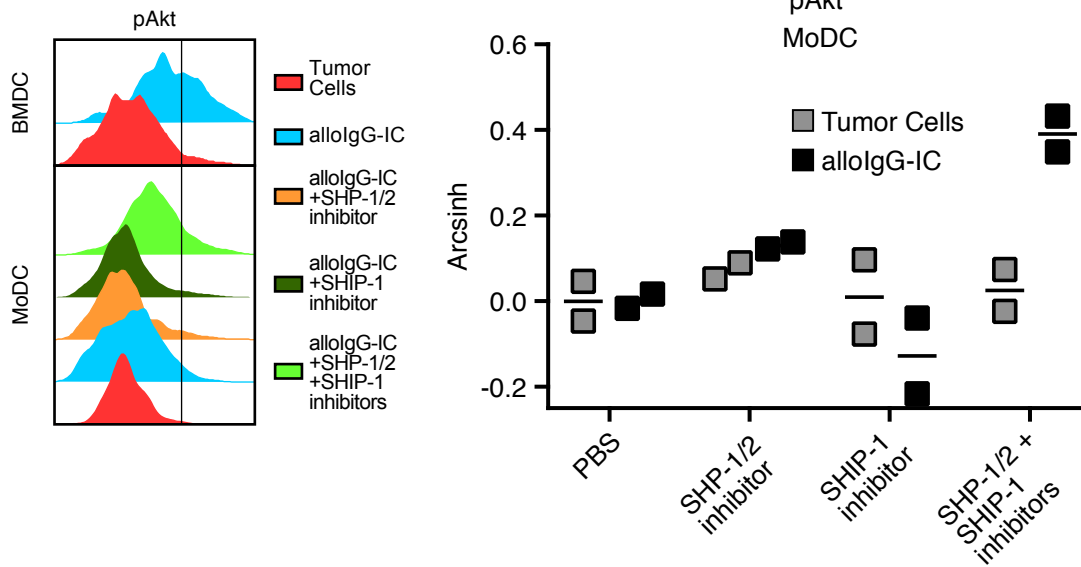
## Supplementary Figure 4



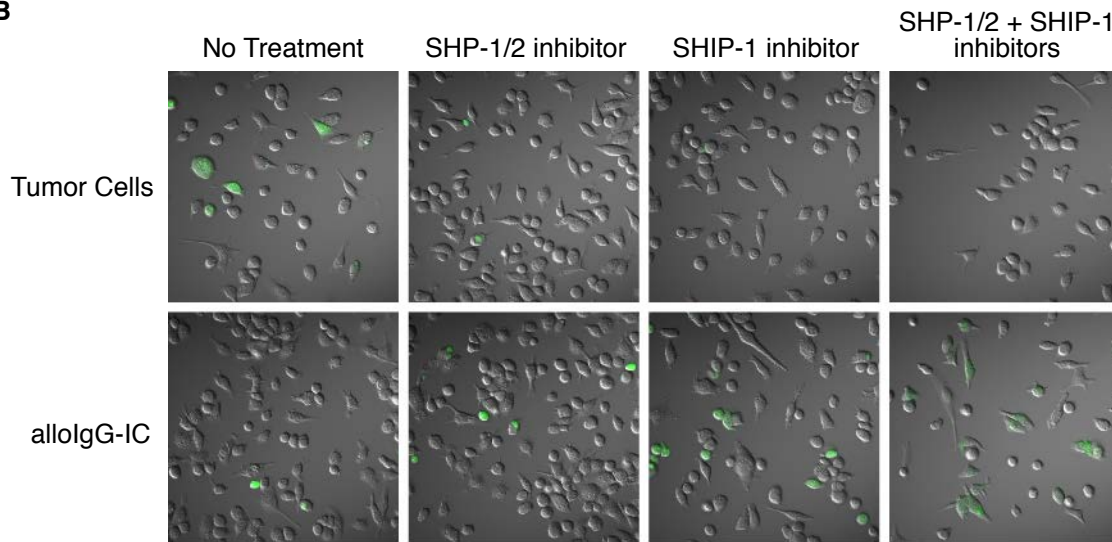
**Similar to BMDC, spleen DC exhibit activation of MAPK and PI3K/Akt pathways following stimulation with alloIgG-IC. Related to Figures 4A&B.** (A) Histograms showing phosphorylated pERK1/2, pJNK and (p)-p38 levels in spleen DC incubated with C57Bl/6 allogeneic IgG-LMP tumor cell immune complexes (alloIgG-IC). Graph shows arcsinh ratios of phospho-species in splenic DC incubated for 15 min with LMP tumor cells or alloIgG-IC over baseline levels from unstimulated DC. (B) pAkt levels in splenic DC incubated with tumor cells or alloIgG-IC, as measured by PathScan® Intracellular signaling array. Graph shows the pixel density of pAkt in activated DC. Statistical significance was determined by two-way ANOVA with Sidak's multiple comparisons test. \* denotes  $p < 0.05$ , \*\* denotes  $p < 0.01$ , \*\*\* denotes  $p < 0.001$ , \*\*\*\* denotes  $p < 0.0001$ .

Supplementary Figure 5

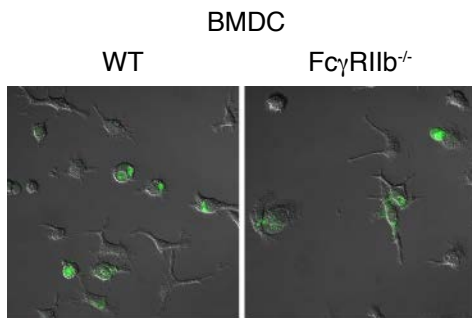
A



B



C



**Dual inhibition of SHP-1 and SHIP-1 enables MoDC activation in response to allIlgG-IC. Related to Figures 6F,G&I.**

(A) Phosphorylated Akt levels in bone marrow monocyte-derived DC (BMDC) and blood monocyte-derived DC (MoDC) incubated with tumor cells or 129/Sv allogeneic IgG-B16 tumor cell immune complexes (allIlgG-IC) in the presence of SHIP-1 and SHP-1/2 inhibitors. Dot plots show arcsinh ratios of pAkt in DC incubated for 10 min with allIlgG-IC over levels in tumor cell-stimulated DC. (B) Confocal images of CFSE-labeled tumor cell uptake by MoDC after overnight incubation with allIlgG-IC with and without SHIP-1 and SHP-1/2 inhibitors. (C) Confocal images of CFSE-labeled tumor cell uptake by BMDC isolated from WT or FcγRIIb KO mice after overnight incubation with IgG-IC. Images were acquired with a 40X objective.