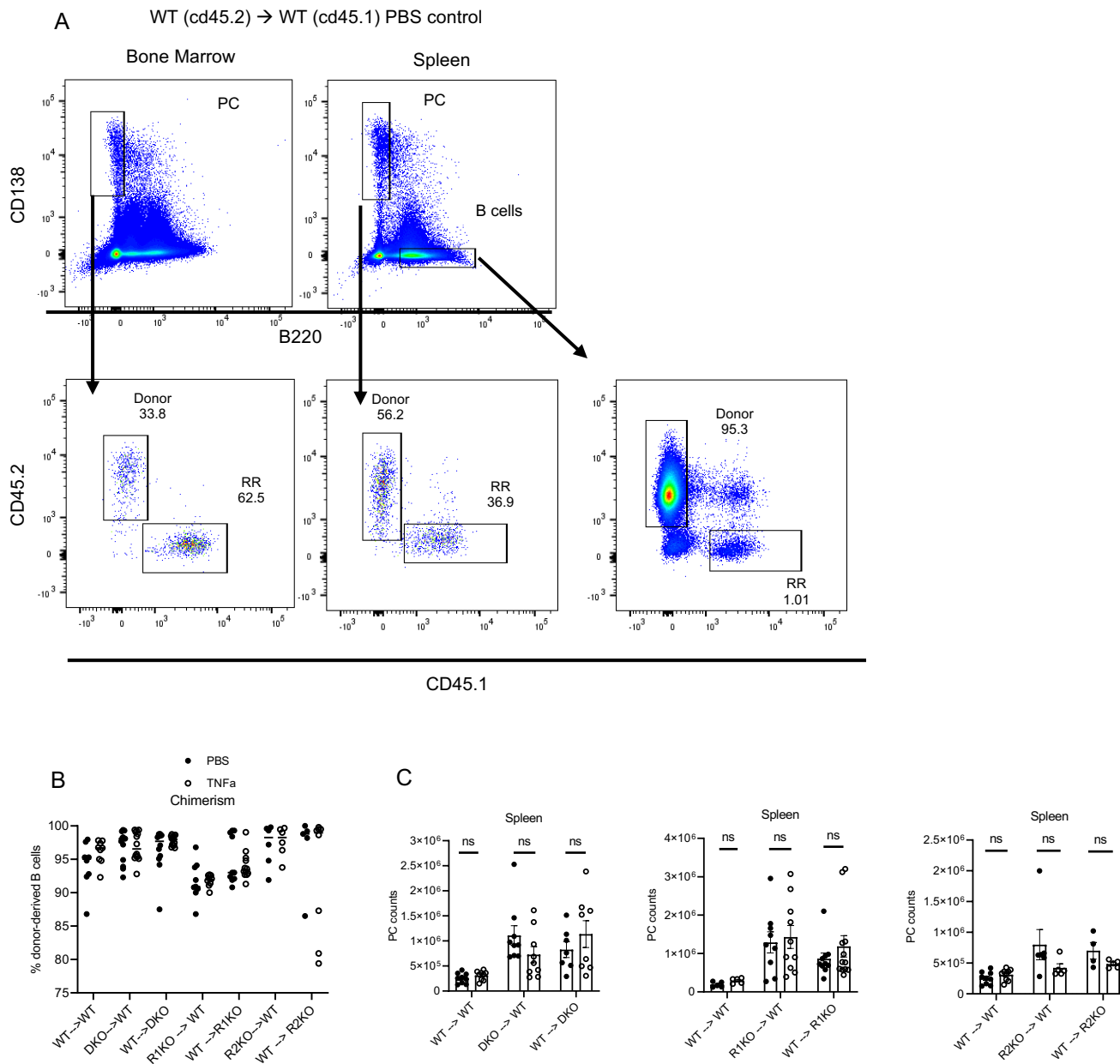
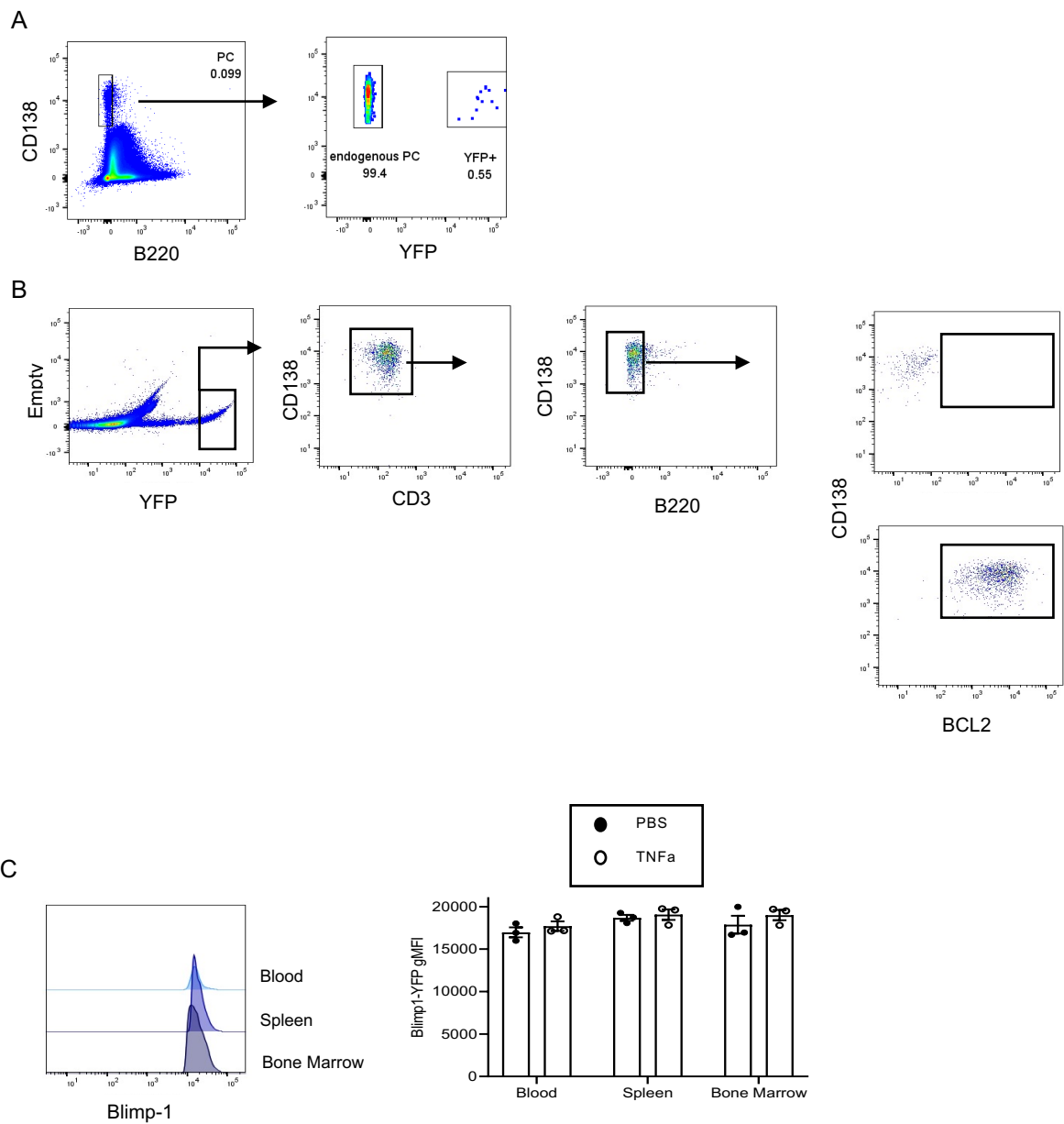


**Figure S1: Plasma cell characterization in WT and TNF $\alpha$  signaling deficient mice.** (A) Gating used for plasma cells or PCs (CD138<sup>high</sup> B220<sup>low</sup>), plasmablasts or PBs (CD138<sup>high</sup> B220<sup>+</sup> Blimp-1<sup>high</sup>) and B cells (B220<sup>high</sup>) in bone marrow, blood, and spleen. (B) Subsets within gates were characterized in Blimp-1-YFP (plasma cell) reporter mice in terms of Blimp-1-YFP, MHC class II/I-A<sup>b</sup>, CD98, and CD93 histograms, with frequencies of cells above cut-off (dotted line) demarked for each subset. (C) Quantification of PC counts in the blood normalized to WT average. N=2, with 3-4 mice per group. (D) Quantification of total bone marrow cells in WT, TNF $\alpha$ KO, DKO, R1KO, and R2KO mice with 3-5 mice per group. C-D statistical analyses were conducted using one-way ANOVA, \*p<0.05, \*\*p<0.0001.



**Figure S2: Donor-derived, radiation-resistant, and splenic PC analysis in WT and TNFa receptor deficient mice**

(A) Gating strategy for donor-derived and radiation-resistant PCs in WT → WT chimera controls. This gating strategy is applied to all chimera analysis in Figure 3. (B) Chimerism of donor-derived B cells in all chimera experiments. (C) Quantification of splenic PCs in PBS (black-filled circles) and rTNFa- (white-filled circles) treated WT, DKO, R1KO, and R2KO chimeras. Data is of 2-3 pooled experiments with 3-5 mice per experiments. (D) Quantification of donor-derived (D) and radiation-resistant (RR) PCs in bone marrow and blood of PBS and rTNFa-treated WT → WT chimera controls. N=2, blood graph is a representative. Groups contained 3-5 mice per group. Analysis of chimera experiments was done using student's t-test \*\*p<0.01.



**Figure S3: Mature PCs in the bone marrow, blood, and spleen.**

Gating strategy for identifying adoptively transferred YFP<sup>high</sup> CD138<sup>high</sup> B220<sup>low</sup> PCs. (B) Gating strategy for analyzing BCL2 expression in mature PCs (CD138<sup>high</sup> B220<sup>low</sup> CD3<sup>neg</sup> YFP<sup>high</sup>) in the bone marrow, blood and spleen. (C) Blimp-1 expression in mature PCs (from B) in the bone marrow, blood, and spleen of PBS (black-filled circles) and rTNFa- (white-filled circles) treated mice.