

Supp. Table S1. Red blood cell parameters in Cish WT, HET and KO C57/BL6 mice.

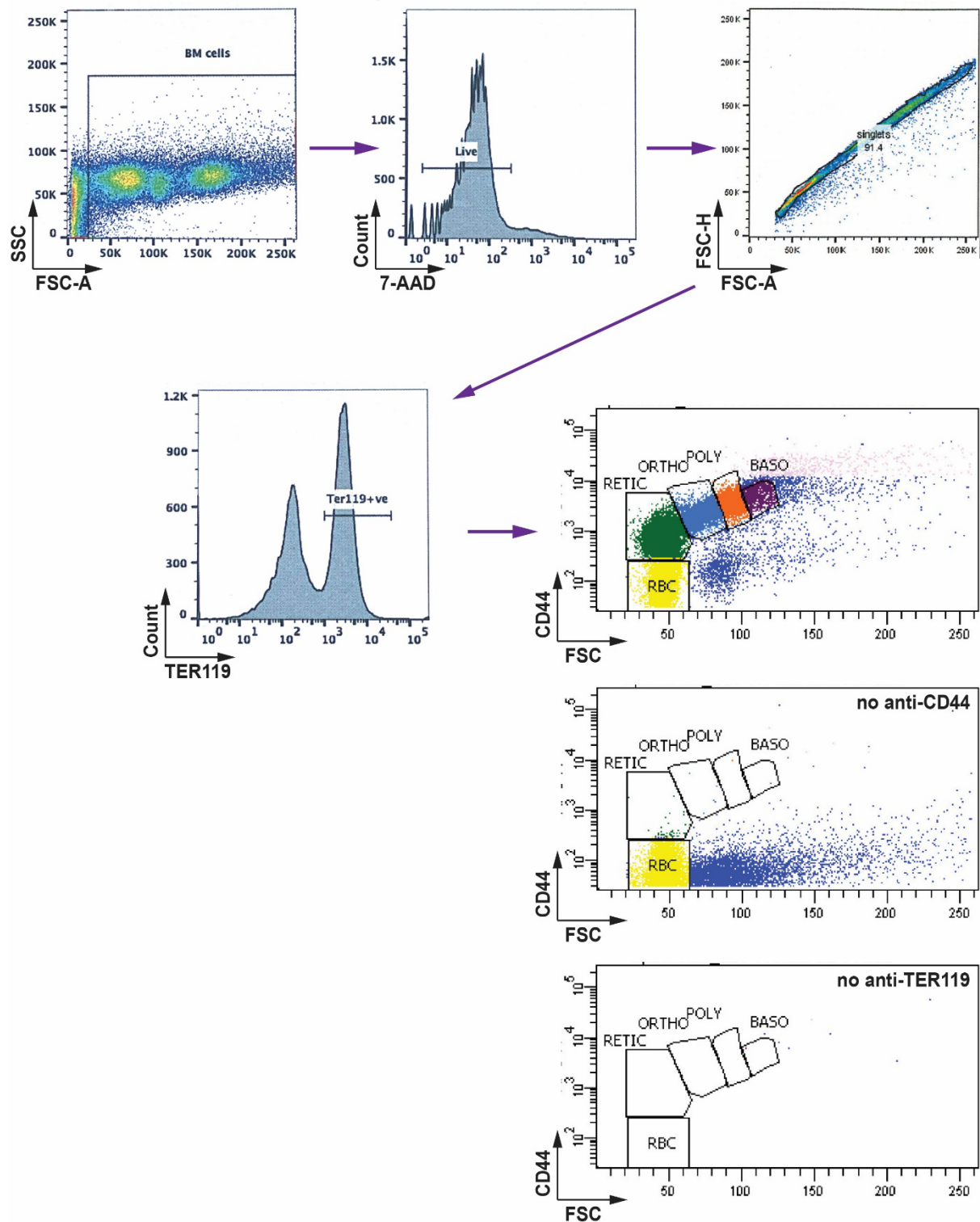
	RBC ($\times 10^5/\text{mm}^3$)	Hb (g/dL)	HCT (%)	MCV (fL)	MCH (g/dL)
WT	10.2 \pm 0.6	16.4 \pm 0.4	48.7 \pm 0.8	49.0 \pm 0.4	16.4 \pm 0.4
HET	9.9 \pm 0.3	16.2 \pm 0.6	49.2 \pm 1.1	49.3 \pm 0.8	16.2 \pm 0.2
KO	9.6 \pm 0.3	15.1 \pm 0.3*	45.0 \pm 0.7*	50.5 \pm 0.3*	16.8 \pm 0.3

Data is presented as mean \pm SEM for Cish WT, HET and KO mice, with statistical significance compared to WT shown (* $p < 0.05$; $n = 4$). RBC: red blood cell count; Hb: hemoglobin; HCT: hematocrit; MCV: mean cell volume; MCH: mean cell hemoglobin.

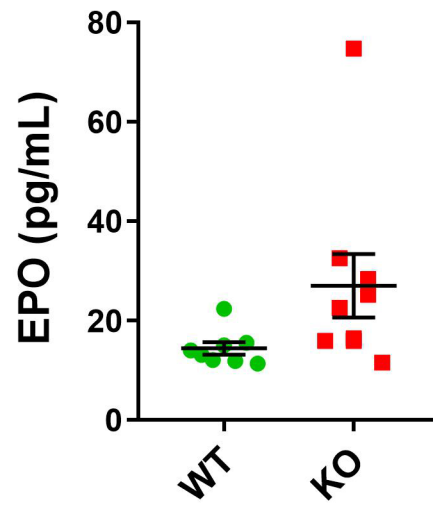
Supp. Table S2. Differentially expressed genes in Cish KO versus WT bone marrow.

Gene name	Gene description	ID	logFC	FDR
<i>Gm13841</i>	pseudogene	ENSMUSG00000083833	-12.77634886	1.91E-59
<i>Gm8210</i>	pseudogene	ENSMUSG00000094497	-11.39177581	1.91E-59
<i>Mst1r</i>	macrophage stimulating 1 receptor	ENSMUSG00000032584	-9.38949571	3.84E-06
<i>Aff4</i>	AF4/FMR2 family, member 4	ENSMUSG00000049470	-3.222573225	0.030208062
<i>Ryk</i>	receptor-like tyrosine kinase	ENSMUSG00000032547	-2.536816371	2.72E-07
<i>Alox15</i>	arachidonate 15-lipoxygenase	ENSMUSG00000018924	2.130038845	0.030208062
<i>Rpl29</i>	ribosomal protein L29	ENSMUSG00000048758	3.369245988	2.97E-34

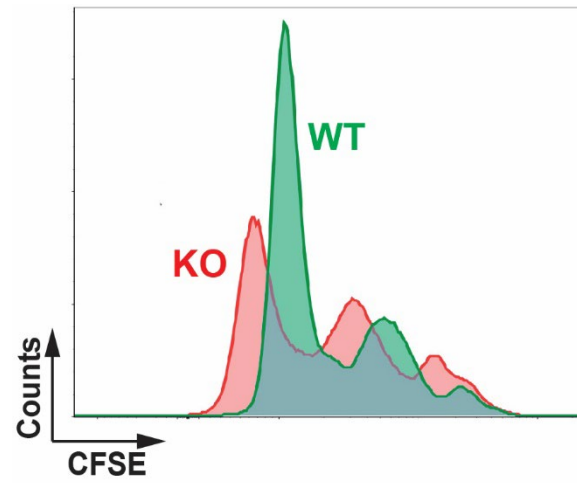
Genes with an FDR $p < 0.05$ from a comparison of Cish WT and KO mice (n=6) are shown. ID: identification number; FC: fold-change; FDR: false discovery rate.



Supp. Figure S1. Flow cytometry strategy and controls. Strategy to quantify erythroid cell populations, showing representative plots from bone marrow samples from a Cish WT Balb/c mouse. Total cells were gated on the basis of morphology on a side scatter area (SSC) versus forward scatter area (FSC-A) plot, with viable cells gated on 7-AAD staining and single cells gated on a forward scatter height (FSC-H) versus FSC-A plot. TER119+ cells were then gated, with individual erythroid cell populations identified by gating on a CD44/FSC plot of these cells as indicated, with FMO controls, no anti-CD4 and no anti-TER119, shown below.



Supp. Figure S2. Analysis of EPO levels. Quantitation of plasma EPO concentration in Cish WT and KO mice. Shown are values for individual mice, along with mean \pm standard error of the mean (SEM). No statistical difference between WT and KO was observed.



Supp. Figure S3. Proliferation of spleen erythroid cells. Analysis of CFSE staining as a measure of proliferation in TER119⁺ spleen cells from representative EPO-treated Cish WT and Cish KO mice.