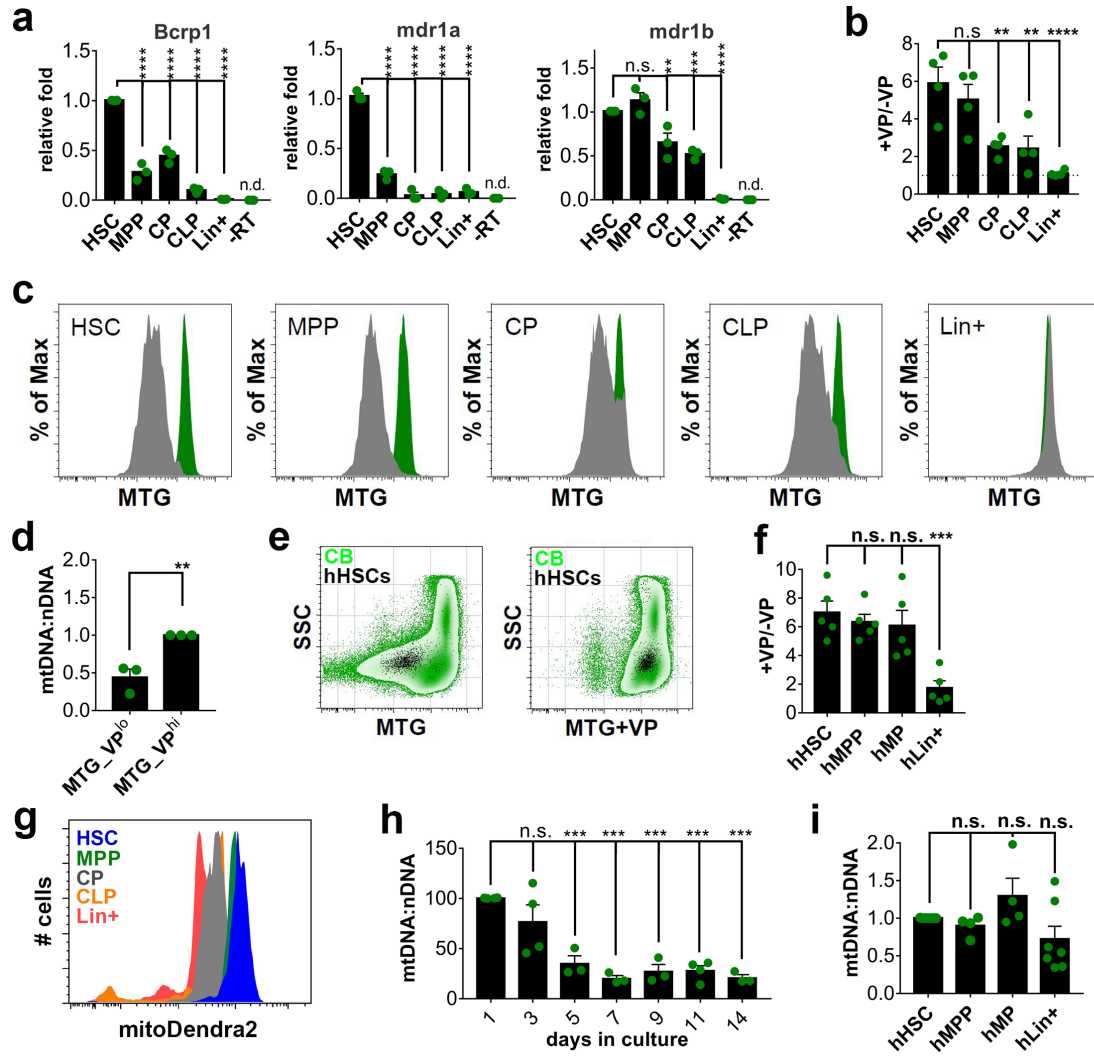


Supplementary Figure 1. Sort and analysis gates, related to Figure 1 and 2. Representative flow cytometric plots showing the gating strategy used to **a.** isolate mouse hematopoietic populations from adult bone marrow. HSC: hematopoietic stem cell; MPP: multipotential progenitor; CP: committed progenitor (comprising common myeloid, granulocyte-macrophage and megakaryocyte-erythrocyte progenitors), CLP: common lymphoid progenitor and Lin+: lineage positive cells. **b.** determine donor contribution in the peripheral blood of CD45.2 recipients 16 weeks post competitive transplantation of CD45.1 MTG^{hi} or MTG^{lo} bone marrow donor cells stained with MitoTracker Green (MTG) in the absence (top) or presence (bottom) of VP. **c.** isolate human hematopoietic populations from cord blood. **d.** determine donor contribution in the peripheral blood of CD45.2 recipients 16 weeks post competitive transplantation of CD45.2 Dendra2^{hi} or Dendra2^{lo} bone marrow donor cells from mitoDendra2 mice.



Supplementary Figure 2. Mitochondrial mass in hematopoietic cells, related to Figure 1. **a.** Relative mRNA expression of efflux pumps in hematopoietic populations (mean \pm s.e.m., $n=3$). **b.** Effect of VP on MTG fluorescence in mouse BM hematopoietic populations (mean \pm s.e.m., $n=4$). **c.** Representative MTG fluorescence histograms in the absence (grey) or presence (green) of VP in mouse hematopoietic populations **d.** Relative mtDNA:nDNA ratio within the 10% MTG_VP^{lo} and MTG_VP^{hi} fractions of CPs stained in the presence of VP, normalized to MTG^{hi} (mean \pm s.e.m., $n=3$). **e.** Flow cytometric profile of human CB mononuclear cells (green) and human HSCs (black) stained with MTG in the absence (left) or presence (right) of VP. **f.** Effect of VP on MTG fluorescence in human CB hematopoietic populations (mean \pm s.e.m., $n=5$ from two independent isolations) **g.** Representative fluorescence histograms of BM hematopoietic populations in mitoDendra2 mice. **h.** Relative mtDNA:nDNA ratio of HSCs over time in culture (mean \pm s.e.m., $n\geq 3$) **i.** Relative mtDNA:nDNA in human CB hematopoietic populations normalized to hHSC (mean \pm s.e.m, $n\geq 4$ from three independent isolations).