



SUPPLEMENTARY FIG. S2. Flow cytometry gating strategy for hematopoietic progenitor cell surface marker expression on expanded CD34⁺ cells. Cells stained with isotype controls for CD34-APC (*left panel*) and CD38-PE (*middle panel*) (**A**); and single color-stained sample with anti-CD45-FITC, shown in the APC and PE channel (*right panel*) (**A**). Expanded hematopoietic cells were first gated on FSC SSC, followed by CD45⁺ (see Supplementary Fig. S2), and then subsequently by gating for CD34⁺ cells, CD38⁻ cells, and CD34⁺CD38⁻ cells (**B**). Representative fluorescence plots for 2D cocultures are shown in *top panels* and for 3D cocultures in *bottom panels*.