

Supplementary information, Figure S8 Hemoglobin expression patterns of expanded adult peripheral blood mononuclear cells (PB MNCs).

(A) RT-PCR to detect expression of genes encoding hemoglobin beta (*HBB*, adult form) and hemoglobin gamma (*HBG*, fetal/neonatal form) before (day 0) and after culture (day 9). After normalization to a housekeeping gene (GAPDH), relative expression levels are plotted in comparison to other cell types in log<sub>10</sub> scales. Uncultured cord blood (CB) mononuclear cells were used as a positive control for *HBB* and *HBG* mRNA levels. The mRNA from undifferentiated iPSC line (SPE TNC1) derived from the same PB MNCs (after the 9-day culture) was also included. ND: not detected. It is evident that after the culture for 9 days, the mRNA level of the *HBB* gene has increased >500-fold and the *HBG* gene increased >8,000-fold. (B) The elevated expression of HBG and HBB in the cultured PB MNCs as detected by FACS analysis of intracellular HBB and HBG proteins with monoclonal antibodies specific to HbA (HBB-PE) or HbF (HBG-FITC).