Supplementary Figure 1
Characterization of hES-BC cells derived from hES cells. hES-BC cells were purified and cytospun on glass slides, then stained with a battery of antibodies. Normal human bone marrow (BM) cells were used as controls. **Left panel,** hES-BC cells stained with specific antibodies; **middle panel,** hES-BC cells stained with specific antibodies and co-stained with DAPI; **right panel,** BM cells stained with specific antibodies and co-stained with DAPI. **Note:** Immunocytochemical analysis revealed that the hES-BC cells expressed GATA-1 [a zinc finger transcription factor essential for both primitive (embryonic) and definitive (adult) erythropoiesis and expressed in murine hemangioblastic cells]¹, ², GATA-2 [a zinc finger transcription factor that functions at multiple steps in hemangioblast development and differentiation]³ (data not shown), LMO2 [a LIM-domain protein critical for hemangioblast development]⁴, transferrin receptor (CD71), and CXCR-4 [the receptor for chemokine SDF-1, which is expressed on the surface of endothelial cells derived from hESCs, hematopoietic stem cells, and mouse hemangiocytes, and plays an important role in migration, retention, and development of hematopoietic progenitors in the BM]⁵-⁷, Epo and Tpo receptors. The cells expressed little or no CD31, CD34 and KDR, or other adhesion molecules (data not shown). hES-BC cells were double stained with GATA-1 (red) and CXCR-4 (green) antibodies, but presented separately; hES-BC cells were also double stained with Epo-receptor (red) and Tpo-receptor (green) antibodies and presented separately. Scale bar = 20 µm.

**References**


