



**Supplementary Figure E1.** Induction of CD36E cells with hemin, DMSO, or PMA. CD36E cells were cultured in the serum-free expansion medium containing hemin, DMSO, or PMA at indicated concentrations. (A) Cell proliferation was measured in triplicate by Trypan blue staining at indicated time points. DMSO (1.25% and 2%) and 50 μM hemin were cytotoxic to CD36E cells, leading to rapid cell death, while 25 μM hemin was less toxic. PMA (10 ng/mL and 50 ng/mL) also inhibited CD36E proliferation but was less toxic compared with DMSO and hemin. (B) Day 3 cells cultured with 25 μM hemin or 10 ng/mL PMA were stained with Wright-Giemsa and analyzed by microscopy at 63× magnification, showing cells were filled with vacuoles. Scale bars: 10 μm. (C) Whole cell lysates were prepared from hemin- (25 μM) or PMA- (10 ng) treated CD36E cells on days 4 and 5, followed by immunoblotting using antibodies against globin chains ( $\alpha$ ,  $\beta$ , and  $\gamma$ ) and glyceraldehyde phosphate dehydrogenase (an internal control). The results showed a substantial decrease in  $\beta$ -chain expression in the cells as compared with cells at day 0, but no such difference was observed for  $\alpha$ - and  $\gamma$ -chain expression. Immunoblotting was not performed on cells treated with DMSO, due to the rapid cell death upon treatment.

**Supplementary Table E1.** Fold changes of cell populations in various cytokines and growth factors

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
EPO	0.94 ± 0.12	0.54 ± 0.12	0.55 ± 0.18	1.00 ± 0.47	0.08 ± 0.06	0.00 ± 0.01			
SCF+IL-3	1.23 ± 0.09	0.71 ± 0.03	0.51 ± 0.06	0.38 ± 0.04	0.00 ± 0.01	0.00 ± 0.00			
SCF	0.99 ± 0.08	0.78 ± 0.04	0.54 ± 0.03	0.21 ± 0.06	0.02 ± 0.02	0.00 ± 0.00			
EPO+SCF	0.97 ± 0.05	1.48 ± 0.26	2.44 ± 0.12	2.82 ± 0.42	3.12 ± 0.37	5.47 ± 0.79	8.00 ± 1.32	11.17 ± 0.32	12.42 ± 0.38
IL-3	0.79 ± 0.11	0.55 ± 0.11	0.43 ± 0.05	0.27 ± 0.08	0.00 ± 0.01	0.01 ± 0.02			
EPO+IL-3	0.89 ± 0.11	0.66 ± 0.10	0.44 ± 0.06	0.21 ± 0.04	0.04 ± 0.01	0.00 ± 0.00			
TPO	0.94 ± 0.18	0.57 ± 0.13	0.42 ± 0.01	0.27 ± 0.12	0.03 ± 0.03	0.00 ± 0.00			
EPO+TPO	0.82 ± 0.08	0.61 ± 0.08	0.37 ± 0.13	0.34 ± 0.13	0.02 ± 0.02	0.01 ± 0.02			
EPO+SCF+IL-3	1.18 ± 0.11	1.73 ± 0.30	2.96 ± 0.39	3.39 ± 0.48	4.44 ± 0.86	5.48 ± 0.53	7.82 ± 0.86	10.75 ± 2.09	11.54 ± 0.83
None	0.67 ± 0.20	0.58 ± 0.06	0.27 ± 0.03	0.33 ± 0.04	0.04 ± 0.03	0.00 ± 0.00			

Values are mean ± SD (n = 3).

**Supplementary Table E2.** Fold changes of cell populations in different cytokine concentrations

	Day 1	Day 2	Day 3	Day 4	Day 5
3 IU EPO/mL	1.33 ± 0.12	0.80 ± 0.28	0.42 ± 0.13	0.32 ± 0.15	0.23 ± 0.03
9 IU EPO/mL	0.87 ± 0.26	0.50 ± 0.06	0.27 ± 0.23	0.47 ± 0.09	0.36 ± 0.08
27 IU EPO/mL	0.87 ± 0.47	0.64 ± 0.19	0.18 ± 0.08	0.34 ± 0.08	0.17 ± 0.13
100 ng SCF/mL	0.99 ± 0.18	1.10 ± 0.10	0.29 ± 0.10	0.29 ± 0.05	0.22 ± 0.05
300 ng SCF/mL	1.25 ± 0.31	0.68 ± 0.12	0.46 ± 0.13	0.29 ± 0.17	0.22 ± 0.07
900 ng SCF/mL	1.17 ± 0.23	0.84 ± 0.39	0.21 ± 0.08	0.30 ± 0.06	0.60 ± 0.72
3 IU EPO/mL + 100 ng SCF/mL	1.90 ± 0.12	1.83 ± 0.26	1.81 ± 0.46	2.08 ± 0.13	2.34 ± 0.95
9 IU EPO/mL + 300 ng SCF/mL	1.69 ± 0.08	1.88 ± 0.40	1.18 ± 0.32	1.43 ± 0.20	1.87 ± 0.30
27 IU EPO/mL + 900 ng SCF/mL	1.21 ± 0.24	1.47 ± 0.20	1.37 ± 0.47	1.30 ± 0.27	1.72 ± 0.55

Values are mean ± SD (n = 3).

**Supplementary Table E3.** Fold changes of cell populations in different mitogens

	Day 1	Day 2	Day 3	Day 4	Day 5
25 μM Hemin	1.27 ± 0.35	0.84 ± 0.19	0.84 ± 0.07	0.84 ± 0.07	0.57 ± 0.30
50 μM Hemin	1.21 ± 0.12	0.71 ± 0.05	0.54 ± 0.08	0.44 ± 0.16	0.23 ± 0.03
1.25% DMSO	1.58 ± 0.23	1.14 ± 0.19	0.28 ± 0.10	0.34 ± 0.05	0.30 ± 0.23
2% DMSO	1.29 ± 0.29	0.79 ± 0.05	0.59 ± 0.05	0.39 ± 0.13	0.48 ± 0.57
10 ng PMA/mL	1.46 ± 0.14	1.33 ± 0.09	1.11 ± 0.02	1.25 ± 0.12	0.99 ± 0.22
50 ng PMA/mL	1.39 ± 0.34	1.09 ± 0.12	1.16 ± 0.16	1.12 ± 0.13	0.79 ± 0.86

Values are mean ± SD (n = 3).