SUPPLEMENTARY FIGURES

Supplementary table 1. ΔΔCt of all investigated targets on qPCR Arrays.

Upregulated	Downregulated	Not expressed

	GROUP	GENE NAME	ΔΔCt			
			HEL	CMK	MEG	
Regulated Targets	Iron Homeostasis	TFR1	2.17	1.67	1.84	transferrin receptor (p90, CD71)
	Iron Homeostasis	FTH	2.89	0.98	0.90	ferritin, heavy polypeptide 1
	Iron Homeostasis	HO-1	0.61	0.89	2.10	heme oxygenase (decycling) 1
	HIF/VEGF	HIF2α	2.25	1.13	2.03	endothelial PAS domain protein 1
	HIF/VEGF	VEGFR1	2.24	1.19	1.75	fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)
	HIF/VEGF	VEGFR2	0.61	1.18	2.13	kinase insert domain receptor (a type III receptor tyrosine kinase)
	Hematopoiesis and Differentiation	HBB	0.48	1.06	0.94	hemoglobin, beta
	Hematopoiesis and Differentiation	VWF	0.24	1.80	0.98	von Willebrand factor
	Hematopoiesis and Differentiation	CD61	0.49	1.51	1.13	integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)
	Hematopoiesis and Differentiation	PPBP	0.14	1.30	1.12	pro-platelet basic protein (chemokine (C-X-C motif) ligand 7)
	Hematopoiesis and Differentiation	PF4	0.16	1.02	1.08	platelet factor 4
	Hematopoiesis and Differentiation	CXCR4	0.30	1.46	1.25	chemokine (C-X-C motif) receptor 4
	Hematopoiesis and Differentiation	ELF-1	6.70	1.19		ephrin-A2
	Cell Cycle/Apoptosis	CCND1	7.17	0.79	0.95	cyclin D1
	Cell Cycle/Apoptosis	BCL2	2.41	0.89	0.91	B-cell CLL/lymphoma 2
	Transcription Factors	GATA6	10.14	1.03		GATA binding protein 6
	Transcription Factors	AR	5.14	0.98	0.90	androgen receptor
	Transcription Factors	ATF3	2.49	0.72	0.63	activating transcription factor 3
	Transcription Factors	FOS	0.26	0.84	0.75	v-fos FBJ murine osteosarcoma viral oncogene homolog
	Transcription Factors	FOXO1	5.66	1.46	1.01	forkhead box O1
	Transcription Factors	FOXA2	6.10		0.96	forkhead box A2
	Transcription Factors	SMAD9	6.78		0.79	SMAD family member 9
	Transcription Factors	SMAD1	9.17	1.07	1.06	SMAD family member 1
	Transcription	TGIF1	4.82	1.11	0.86	TGFB-induced factor homeobox 1

	Factors					
Non-regulated Targets	**Iron Homeostasis**	**FTMT**			1.07	ferritin mitochondrial
	Iron Homeostasis	**SLC11A1**			1.07	solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1
	Iron Homeostasis	**HAMP**	1.09	1.13		hepcidin antimicrobial peptide
	Iron Homeostasis	**TWSG1**	1.14	0.96	1.09	twisted gastrulation homolog 1 (Drosophila)
	Iron Homeostasis	**FECH**	1.19	1.14	1.12	ferrochelatase
	Iron Homeostasis	**ALAS1**	1.21	1.15	1.20	aminolevulinate, delta-, synthase 1
	Iron Homeostasis	**TFR2**	1.22	1.26	1.24	transferrin receptor 2
	Iron Homeostasis	**ALAS2**	1.23	1.43	1.07	aminolevulinate, delta-, synthase 2
	Iron Homeostasis	**FXN**	1.43	0.91	0.89	frataxin
	Iron Homeostasis	**ABCB7**	1.67	1.05	1.15	ATP-binding cassette, sub-family B (MDR/TAP), member 7
	Iron Homeostasis	**HMOX2**	1.69	0.90	1.11	heme oxygenase (decycling) 2
	Iron Homeostasis	**FLVCR1**	1.74	0.91	1.16	feline leukemia virus subgroup C cellular receptor 1
	Iron Homeostasis	**HSD3B1**				hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 1
	Iron Homeostasis	**SCARA 5**				scavenger receptor class A, member 5 (putative)
	Iron Homeostasis	**ACO1**	0.90	0.89	1.13	aconitase 1, soluble
	Iron Homeostasis	**BACH1**	0.81	1.19	1.27	BTB and CNC homology 1, basic leucine zipper transcription factor 1
	Iron Homeostasis	**BMP6**	0.80	0.94	1.38	bone morphogenetic protein 6
	Iron Homeostasis	**EIF2AK1**	1.50	1.14	1.09	eukaryotic translation initiation factor 2-alpha kinase 1
	Iron Homeostasis	**FTL**	1.03	1.15	1.09	ferritin, light polypeptide
	Iron Homeostasis	**GDF15**	1.19	1.06	1.16	growth differentiation factor 15
	Iron Homeostasis	**IREB2**	1.06	0.95	1.20	iron-responsive element binding protein 2
	Iron Homeostasis	**NRF1**	1.00	1.07	1.23	nuclear respiratory factor 1
	Iron Homeostasis	**SLC22A17**	0.81	1.33	0.94	solute carrier family 22, member 17
	Iron Homeostasis	**SLC25A37**	1.06	1.27	1.09	solute carrier family 25, member 37
	Iron Homeostasis	**SLC40A1**	1.18	1.69	1.34	solute carrier family 40 (iron-regulated transporter), member 1
	HIF/VEGF	**VEGFA**	1.41	1.17	1.25	vascular endothelial growth factor A
	HIF/VEGF	**VEGFB**	1.63	1.10	1.10	vascular endothelial growth factor B
	Oxidative stress	**NOS2**	0.67	0.94	1.07	nitric oxide synthase 2, inducible
	Oxidative stress	**CAT**	1.33	1.04	1.12	catalase
	Oxidative stress	**GPX4**	1.26	1.13	1.24	glutathione peroxidase 4 (phospholipid hydroperoxidase)
	Oxidative stress	**SOD1**	1.00	0.90	0.96	superoxide dismutase 1, soluble
	Oxidative stress	**SOD2**	1.04	1.15	1.15	superoxide dismutase 2, mitochondrial
	Hematopoiesis and Differentiation	**GP6**	0.53	1.03	1.07	glycoprotein VI (platelet)
	Hematopoiesis and Differentiation	**GPX1**	0.55	1.23	0.89	glutathione peroxidase 1
	Hematopoiesis and Differentiation	**CD34**	0.57	1.13	1.45	CD34 molecule
	Hematopoiesis	**TUBB1**	0.60	1.68	1.21	tubulin, beta 1

	and Differentiation					
	Hematopoiesis and Differentiation	**CD41**	0.63	1.10	1.02	integrin, alpha 2b (platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41)
	Hematopoiesis and Differentiation	**GP5**	0.65	1.12	1.14	glycoprotein V (platelet)
	Hematopoiesis and Differentiation	**CD42b**	0.72	1.03	0.96	glycoprotein Ib (platelet), alpha polypeptide
	Hematopoiesis and Differentiation	**S1PR4**	0.73	1.07	0.92	sphingosine-1-phosphate receptor 4
	Hematopoiesis and Differentiation	**CD36**	0.74	1.32	1.32	CD36 molecule (thrombospondin receptor)
	Hematopoiesis and Differentiation	**MPL**	0.75	1.36	1.23	myeloproliferative leukemia virus oncogene
	Hematopoiesis and Differentiation	**EPOR**	0.84	1.41	0.97	erythropoietin receptor
	Hematopoiesis and Differentiation	**CXCL12**	0.97		1.17	chemokine (C-X-C motif) ligand 12
	Hematopoiesis and Differentiation	**EPO**	1.09	1.13		erythropoietin
	Hematopoiesis and Differentiation	**GYPA**	1.42	1.40	0.97	glycophorin A (MNS blood group)
	Hematopoiesis and Differentiation	**THPO**	1.96	1.01		thrombopoietin
	Hematopoiesis and Differentiation	**JAK2**	0.82	1.21	1.29	Janus kinase 2
	Hematopoiesis and Differentiation	**KIT**	0.88	0.94	0.99	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
	Hematopoiesis and Differentiation	**KITLG**	1.65	1.02	0.74	KIT ligand
	Hematopoiesis and Differentiation	**SPI1**	0.92	1.20	1.08	spleen focus forming virus (SFFV) proviral integration oncogene spi1
	Hematopoiesis and Differentiation	**TYK2**	1.17	1.11	1.01	tyrosine kinase 2
	Cell Cycle/Apoptosis	**CDKN2A**			1.28	cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
	Cell Cycle/Apoptosis	**BCL2L1**	0.75	1.19	1.21	BCL2-like 1
	Cell Cycle/Apoptosis	**BAX**	1.01	1.05	1.17	BCL2-associated X protein
	Cell Cycle/Apoptosis	**CCND3**	1.02	1.10	0.98	cyclin D3
	Cell Cycle/Apoptosis	**CDC6**	1.21	0.90	1.11	cell division cycle 6 homolog (S. cerevisiae)
	Cell Cycle/Apoptosis	**CDKN1A**	1.72	1.49	1.34	cyclin-dependent kinase inhibitor 1A (p21, Cip1)
	Cell Cycle/Apoptosis	**CCNE1**	1.78	0.99	1.24	cyclin E1
	Cell Cycle/Apoptosis	**CCNB1**	1.40	0.92	1.20	cyclin B1
	Cell Cycle/Apoptosis	**CDK1**	1.38	1.01	0.97	cyclin-dependent kinase 1
	Cell Cycle/Apoptosis	**CDK2**	1.19	1.09	1.14	cyclin-dependent kinase 2
	Cell	**CDKN1B**	1.08	1.21	1.07	cyclin-dependent kinase inhibitor 1B

	Cycle/Apoptosis					(p27, Kip1)
	Cell Cycle/Apoptosis	**MCM2**	0.86	0.91	1.09	minichromosome maintenance complex component 2
	Transcription Factors	**MEIS1**	0.63	1.19	1.20	Meis homeobox 1
	Transcription Factors	**HOXA9**	0.70	0.83	0.78	homeobox A9;HOXA10-HOXA9 readthrough
	Transcription Factors	**FOXO3**	0.89	1.19	1.26	forkhead box O3;forkhead box O3B pseudogene
	Transcription Factors	**HOXA11**	0.90	0.82	1.07	homeobox A11
	Transcription Factors	**CBFB**	1.43	0.99	1.19	core-binding factor, beta subunit
	Transcription Factors	**ELK4**	0.97	0.95	0.92	ELK4, ETS-domain protein (SRF accessory protein 1)
	Transcription Factors	**FLI1**	0.70	1.12	1.05	Friend leukemia virus integration 1
	Transcription Factors	**GABPA**	1.17	1.03	1.15	GA binding protein transcription factor, alpha subunit 60kDa
	Transcription Factors	**HOXB4**	1.45	1.06	0.89	homeobox B4
	Transcription Factors	**NFE2**	0.92	1.21	1.20	nuclear factor (erythroid-derived 2), 45kDa
	Transcription Factors	**NFE2L3**	0.73	0.89	1.20	nuclear factor (erythroid-derived 2)-like 3
	Transcription Factors	**RAB27B**	0.71	0.85	1.10	RAB27B, member RAS oncogene family
	Transcription Factors	**RUNX1**	0.76	1.12	1.12	runt-related transcription factor 1
	Transcription Factors	**TAL1**	0.71	1.04	1.21	T-cell acute lymphocytic leukemia 1
	Transcription Factors	**ZFPM1**	0.78	1.29	1.10	zinc finger protein, multitype 1
	Transcription Factors	**ARNT**	0.88	1.12	1.02	aryl hydrocarbon receptor nuclear translocator
	Transcription Factors	**ATF1**	0.88	0.88	1.14	activating transcription factor 1
	Transcription Factors	**ATF2**	0.75	1.03	1.14	activating transcription factor 2
	Transcription Factors	**ATF4**	0.72	0.97	1.24	activating transcription factor 4 (tax-responsive enhancer element B67)
	Transcription Factors	**B2M**	0.59	1.31	0.94	beta-2-microglobulin
	Transcription Factors	**CEBPA**	0.98	0.89	1.19	CCAAT/enhancer binding protein (C/EBP), alpha
	Transcription Factors	**CEBPB**	1.23	0.98	1.13	CCAAT/enhancer binding protein (C/EBP), beta
	Transcription Factors	**CEBPG**	1.14	0.93	1.28	CCAAT/enhancer binding protein (C/EBP), gamma
	Transcription Factors	**CREB1**	0.74	1.30	1.00	cAMP responsive element binding protein 1
	Transcription Factors	**CREBBP**	0.83	1.29	0.96	CREB binding protein
	Transcription Factors	**CTNNB1**	0.76	1.09	1.32	catenin (cadherin-associated protein), beta 1, 88kDa

	Transcription Factors	**DR1**	0.78	0.96	1.03	down-regulator of transcription 1, TBP-binding (negative cofactor 2)
	Transcription Factors	**E2F1**	0.77	0.99	0.82	E2F transcription factor 1
	Transcription Factors	**E2F6**	0.86	0.98	1.01	E2F transcription factor 6
	Transcription Factors	**EGR1**	0.60	1.03	0.68	early growth response 1
	Transcription Factors	**ELK1**	1.13	1.15	1.05	ELK1, member of ETS oncogene family
	Transcription Factors	**ESR1**				estrogen receptor 1
	Transcription Factors	**ETS1**	0.55	1.14	1.41	v-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
	Transcription Factors	**ETS2**	0.57	1.25	1.06	v-ets erythroblastosis virus E26 oncogene homolog 2 (avian)
	Transcription Factors	**GATA1**	0.69	1.17	0.99	GATA binding protein 1 (globin transcription factor 1)
	Transcription Factors	**GATA2**	0.65	1.06	1.13	GATA binding protein 2
	Transcription Factors	**GATA3**	0.70	0.87	1.12	GATA binding protein 3
	Transcription Factors	**GTF2B**	0.77	1.20	1.02	general transcription factor IIB
	Transcription Factors	**GTF2F1**	0.84	0.94	0.94	general transcription factor IIF, polypeptide 1, 74kDa
	Transcription Factors	**GUSB**	1.30	1.06	1.19	glucuronidase, beta
	Transcription Factors	**HAND1**			0.96	heart and neural crest derivatives expressed 1
	Transcription Factors	**HAND2**				heart and neural crest derivatives expressed 2
	Transcription Factors	**HDAC1**	0.82	0.98	1.54	histone deacetylase 1
	Transcription Factors	**HIF1A**	0.71	1.15	1.57	hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
	Transcription Factors	**HMBS**	0.77	1.00	0.98	hydroxymethylbilane synthase
	Transcription Factors	**HNF1A**				HNF1 homeobox A
	Transcription Factors	**HNF4A**	0.82	1.36	0.59	hepatocyte nuclear factor 4, alpha
	Transcription Factors	**HOXA5**	0.63	1.05	1.97	homeobox A5
	Transcription Factors	**HSF1**	0.77	0.90	0.94	heat shock transcription factor 1
	Transcription Factors	**ID1**	0.58	1.02	1.40	inhibitor of DNA binding 1, dominant negative helix-loop-helix protein
	Transcription Factors	**IRF1**	0.58	1.28	0.89	interferon regulatory factor 1
	Transcription Factors	**JUN**	1.40	0.70	0.75	jun oncogene
	Transcription Factors	**JUNB**	0.61	0.82	0.82	jun B proto-oncogene

	Transcription Factors	**JUND**				jun D proto-oncogene
	Transcription Factors	**MAX**	0.79	1.33	0.97	MYC associated factor X
	Transcription Factors	**MEF2A**	0.67	1.30	0.93	myocyte enhancer factor 2A
	Transcription Factors	**MEF2B**	1.07	1.01	1.17	myocyte enhancer factor 2B
	Transcription Factors	**MEF2C**	0.58	1.25	1.47	myocyte enhancer factor 2C
	Transcription Factors	**MYB**	0.90	1.13	1.11	v-myb myeloblastosis viral oncogene homolog (avian)
	Transcription Factors	**MYC**	0.79	1.20	1.05	v-myc myelocytomatosis viral oncogene homolog (avian)
	Transcription Factors	**MYF5**				myogenic factor 5
	Transcription Factors	**MYOD1**				myogenic differentiation 1
	Transcription Factors	**NFAT5**	1.10	1.19	0.99	nuclear factor of activated T-cells 5, tonicity-responsive
	Transcription Factors	**NFATC1**	1.35	1.09	1.01	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
	Transcription Factors	**NFATC2**	0.74	1.06	1.02	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
	Transcription Factors	**NFATC3**	0.86	1.05	1.02	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
	Transcription Factors	**NFATC4**	0.64	1.16	0.91	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 4
	Transcription Factors	**NFKB1**	0.84	0.97	0.95	nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
	Transcription Factors	**NFYB**	0.84	0.97	1.04	nuclear transcription factor Y, beta
	Transcription Factors	**NR3C1**	1.34	1.26	1.06	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)
	Transcription Factors	**PAX6**	0.97	1.09		paired box 6
	Transcription Factors	**PGK1**	0.99	1.00	1.05	phosphoglycerate kinase 1
	Transcription Factors	**POU2AF1**				POU class 2 associating factor 1
	Transcription Factors	**PPARA**	0.57	1.09	1.15	peroxisome proliferator-activated receptor alpha
	Transcription Factors	**PPARG**			0.89	peroxisome proliferator-activated receptor gamma
	Transcription Factors	**PPIA**	1.03	0.83	0.96	peptidylprolyl isomerase A (cyclophilin A)
	Transcription Factors	**RB1**	0.72	1.21	0.95	retinoblastoma 1
	Transcription Factors	**REL**	0.94	0.97	1.09	v-rel reticuloendotheliosis viral oncogene homolog (avian)
	Transcription Factors	**RELA**	0.86	0.99	0.93	v-rel reticuloendotheliosis viral oncogene homolog A (avian)
	Transcription Factors	**RELB**	0.91	1.16	0.77	v-rel reticuloendotheliosis viral oncogene homolog B

	Transcription Factors	**RPLP0**	0.84	1.02	1.08	ribosomal protein, large, P0
	Transcription Factors	**SMAD4**	0.88	1.16	1.16	SMAD family member 4
	Transcription Factors	**SMAD5**	0.93	1.01	0.96	SMAD family member 5
	Transcription Factors	**SP1**	0.86	1.17	1.04	Sp1 transcription factor
	Transcription Factors	**SP3**	0.90	1.09	1.28	Sp3 transcription factor
	Transcription Factors	**STAT1**	0.72	1.11	1.01	signal transducer and activator of transcription 1, 91kDa
	Transcription Factors	**STAT2**	0.72	1.00	0.94	signal transducer and activator of transcription 2, 113kDa
	Transcription Factors	**STAT3**	0.64	1.26	0.96	signal transducer and activator of transcription 3 (acute-phase response factor)
	Transcription Factors	**STAT4**	0.60	0.74	0.93	signal transducer and activator of transcription 4
	Transcription Factors	**STAT5A**	0.96	0.94	0.97	signal transducer and activator of transcription 5A
	Transcription Factors	**STAT5B**	1.02	0.93	0.94	signal transducer and activator of transcription 5B
	Transcription Factors	**STAT6**	0.91	1.15	1.09	signal transducer and activator of transcription 6, interleukin-4 induced
	Transcription Factors	**TBP (A9)**	1.41	1.16	1.01	TATA box binding protein
	Transcription Factors	**TBP (H6)**	0.92	1.13	1.17	TATA box binding protein
	Transcription Factors	**TCF7L2**	1.23	1.40	1.05	transcription factor 7-like 2 (T-cell specific, HMG-box)
	Transcription Factors	**TFAP2A**	1.65	1.26	1.00	transcription factor AP-2 alpha (activating enhancer binding protein 2 alpha)
	Transcription Factors	**TP53**	0.55	0.96	0.75	tumor protein p53
	Transcription Factors	**UBC**	0.97	1.18	1.01	ubiquitin C
	Transcription Factors	**YY1**	0.96	1.09	0.61	YY1 transcription factor