Supplementary Table 3. Selected individual HEXIM1-dependent genes are listed according to functional group for the hypoxia down-regulated and up-regulated gene categories. The genes that are belonging to several groups are listed only ones in a most relevant functional category.

Immunity and defense, inflammatory response

	Down-regulated by hypoxia		Up-regulated by hypoxia	
Function	**Gene**	**Gene name**	**Gene**	**Gene name**
Cytokine	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)	S100A8	S100 calcium binding protein A8
			CSF3	Colony stimulating factor 3 (granulocyte)
	IL22	Interleukin 22	IL17D	Interleukin 17D
	IL3	Interleukin 3 (colony-stimulating factor, multiple)	IL7	Interleukin 7
	IL36B	Interleukin 36, beta	LEFTY1	Left-right determination factor 1
	LEPROT	Leptin receptor overlapping transcript		
	LIF	Leukemia inhibitory factor (cholinergic differentiation factor)		
	SIRPD	Signal-regulatory protein delta		
	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11		
	BMP7	Bone morphogenetic protein 7		
	BMP8A	Bone morphogenetic protein 8a		
	CD40LG	CD40 ligand		
	GDF6	Growth differentiation factor 6		
	GDF9	Growth differentiation factor 9		
Interferone	IFNA21	Interferon, alpha 21	IFNA2	Interferon, alpha 2
	IFNW1	Interferon, omega 1	IFNE	Interferon, epsilon
Interleukin receptor	CSF2RB	Colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage)	IL1RL2	Interleukin 1 receptor-like 2
	IL1RAPL2	Interleukin 1 receptor accessory protein-like 2		

	IL1RL1 IL2RA IL28RA	Interleukin 1 receptor-like 1 Interleukin 2 receptor, alpha Interleukin 28 receptor, alpha (interferon, lambda receptor)		
Inflammatory response	ALOX15 CMA1 CYSLTR1 NCR3 NPPB PLA2G2A SELP SERPINA3 TRIL	Arachidonate 15-lipoxygenase Chymase 1, mast cell Cysteinyl leukotriene receptor 1 Natural cytotoxicity triggering receptor 3 Natriuretic peptide B Phospholipase A2, group IIA (platelets, synovial fluid) Selectin P (granule membrane protein 140kDa, antigen CD62) Serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 3 TLR4 interactor with leucine-rich repeats	AIF1 FYB	Allograft inflammatory factor 1 FYN binding protein
T-cell mediated immunity	CD2 CD69 CD7 LEMD1 TAPBPL CTLA4 FOXP3 ICOSLG VTCN1 HLA-DRA NFATC2 SLAMF1	CD2 molecule CD69 molecule CD7 molecule LEM domain containing 1 TAP binding protein-like Cytotoxic T-lymphocyte-associated protein 4 Forkhead box P3 Inducible T-cell co-stimulator ligand V-set domain containing T cell activation inhibitor 1 Major histocompatibility complex, class II, DR alpha Nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 Signaling lymphocytic activation molecule family member 1	CD247 CD3G SIRPG	CD247 molecule CD3g molecule, gamma (CD3-TCR complex) Signal-regulatory protein gamma
Immune response and innate immune response	CLEC4M SERPING1	C-type lectin domain family 4, member M Serpin peptidase inhibitor, clade G (C1 inhibitor), member 1	CLEC4A CTSG OAS2	C-type lectin domain family 4, member A Cathepsin G 2'-5'-oligoadenylate synthetase 2, 69/71kDa

	TNFSF11	Tumor necrosis factor (ligand) superfamily, member 11	PRG4	Proteoglycan 4
	VPREB1	Pre-B lymphocyte 1		
Defense response to bacterium	S100A12	S100 calcium binding protein A12	FCER1G	Fc fragment of IgE, high affinity I, receptor for; gamma polypeptide
	BPI	Bactericidal/permeability-increasing protein		
	DEFB107B	Defensin,beta 107B	RNASE7	Ribonuclease, RNase A family, 7
	DEFB107A	Defensin, beta 107A		
	DEFB128	Defensin, beta 128		
	DEFB136	Defensin, beta 136		
	DMBT1	Deleted in malignant brain tumors 1		
	PLA2G2A	Phospholipase A2, group IIA (platelets, synovial fluid)		
	SELP	Selectin P (granule membrane protein 140kDa, antigen CD62		
	SLC11A1	Sulute carrier family 11 (proton-coupled divalent metal ion transporters), member 1		
	SPAG11	Sperm associated antigen 11A; sperm associated antigen 11B		
	TLR9	Toll-like receptor 9		

Chemotaxis and cell migration, angiogenesis

	Down-regulated by hypoxia		**Up-regulated by hypoxia**	
Function	**Gene**	**Gene name**	**Gene**	**Gene name**
Chemokines and chemokine receptors	CCL14 (HCC-1)	Chemokine (C-C motif) ligand 14 (haemofiltrate CC chemokine-1	CCL1 (I-309)	Chemokine (C-C motif) ligand 1
	CCL15 (MIP-1δ)	Chemokine (C-C motif) ligand 15 (macrophage inflammatory protein-1δ)	CCL19 (MIP-3β)	Chemokine (C-C motif) ligand 19 (macrophage inflammatory protein-3β)
	CCL25 (TECK)	Chemokine (C-C motif) ligand 25 (thymus-expressed chemokine)	SIRPB1	Signal-regulatory protein beta 1
			SIRPG	Signal-regulatory protein gamma
			CXCL8 (IL8)*	Chemokine (C-X-C motif) ligand 8 (Interleukin 8)

	CXCL6 (GCP-2) CCL2 (MCP-1)* CCR2** CCRL1	Chemokine (C-X-C motif) ligand 6 (granulocyte chemotactic protein 2) Chemokine (C-C motif) ligand 2 (monocyte chemoattractant protein) Chemokine (C-C motif) receptor 2 Chemokine (C-C motif) receptor-like 1		
Regulation of angiogenesis	CD248 TLX2 AMOTL2 ANGPT4 NRP2 EPHA2 FGFR2 ZC3H12A	Cd248 molecule, endosialin T-cell leukemia homeobox 2 Angiomotin like 2 Angiopoietin 4 Neuropilin 2 EPH receptor A2 Fibroblast growth factor receptor 2 Zinc finger CCCH-type containing 12A	AMOT	angiomotin

* - these chemokines were added to the table based on RT-qPCR observations.

** - CCR2 is a receptor for CCL2/MCP-1, CCL7/MCP-3, CCL12, CCL13/MCP-4 and CCL16/HCC-4 chemokines.

ATPase activity, mitochondrion function, respiratory chain

	Down-regulated by hypoxia		**Up-regulated by hypoxia**	
Function	**Gene**	**Gene name**	**Gene**	**Gene name**
ATPase activity	ABCA1 ABCB5 ABCC13 ATP10A ATP2B2	ATP-binding cassette, sub-family A (ABC1), member 1 ATP-binding cassette, sub-family B (MDR/TAP), member 5 ATP-binding cassette, sub-family C (CFTR/MRP), member 13, pseudogene ATPase, class V, type 10A ATPase, Ca++ transporting, plasma membrane 2	ATAD3C ATP2A1	ATPase family, AAA domain containing 3C ATPase, Ca^{++} transporting, cardiac muscule, fast switch 1

Mitochondrial function and respiratory chain	ACSM2B	Acyl-CoA synthetase medium-chain family member 2B	CA5B	Carbonic anhydrase VB, mitochondrial
			COX7B2	Cytochrome c oxidase subunit VIIb2
	MRPS17	Mitochondrial ribosomal protein S17	CYP4Z2P	Cytochrome P450, family 4, subfamily Z, polypeptide 2 pseudogene
	MRPS25	Mitochondrial ribosomal protein S25		
	SFXN1	Sideroflexin 1		
	SLC25A27	Solute carrier family 25, member 27		
	SLC25A48	Solute carrier family 25, member 48		
	CYP11B2	Cytochrome P450, family 11, subfamily B, polypeptide 2		
	UCP1	Uncoupling protein 1 (mitochondrial, proton carrier)		

Regulation of transcription, chromatin and histone modifications

	Down-regulated by hypoxia		Up-regulated by hypoxia	
Function	**Gene**	**Gene name**	**Gene**	**Gene name**
Regulation of transcription, DNA dependent	CASZ1	Castor zinc finger 1	AKNA	AT-hook transcription factor
	CITED1	Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 1	CDC5L	CDC5 cell division cycle 5-like (S. pombe)
			CNOT4	CCr4-NOT transcription complex, subunit 4
	GTF2IRD2	GTF2I repeat domain containing 2	EFV1	Ets variant 1
	ZBTB20	Zinc finger and BTB domain containing 20	LMCD1	LIM and cysteine-rich domains 1
	ZFP28	Zinc finger protein 28 homolog (mouse)	SIM1	Single-minded homolog 1 (Drosophila)
	ZFP3	Zinc finger protein 3 homolog (mouse)	SP140	SP140 nuclear body protein
	ZFP92	Zinc finger protein 92 homolog (mouse)	SP8	Sp8 transcription factor
	ZIK1	Zinc finger protein interacting with K protein 1 homolog (mouse)	ZBTB8B	Zinc finger and BTB domain containing 8B
			ZNF233	Zinc finger protein 233
	ZNF382	Zinc finger protein 382	ZNF300P1	Zinc finger protein 300 pseudogene 1
	ZNF425	Zinc finger protein 425	ZNF441	Zinc finger protein 441
	ZNF45	Zinc finger protein 45	ZNF514	Zinc finger protein 514
	ZNF501	Zinc finger protein 501	ZNF541	Zinc finger protein 541
	ZNF554	Zinc finger protein 554	ZNF618	Zinc finger protein 618

	ZNF570	Zinc finger protein 570	ZNF680	Zinc finger protein 680
	ZNF705G	Zinc finger protein 705G	ZNF730	Zinc finger protein 730
	ZNF711	Zinc finger protein 711	ZNF773	Zinc finger protein 773
	ZNF829	Zinc finger protein 829	ZNF876P	Zinc finger protein 876, pseudogene
	ZNF862	Zinc finger protein 862		
Regulation of transcription from RNA Polymerase II promoter	CSRNP1	Cysteine-serine-rich nuclear protein 1	CHD2	Chromodomain helicase DNA binding protein 2
	FOXI3	Forkhead box I3	FOXO4	Forkhead box O4
	INHBA	Inhibin, beta A	FOXS1	Forkhead box S1
	MYOCD	Myocardin	GLIS3	GLIS family zinc finger 3
	POLR2D	Polymerase (RNA) II (DNA directed) polypeptide D	NCBP1	Nuclear cap binding protein subunit 1, 80kDa
	STON1-GTF2A1L	STON1-GTF2A1L readthrough	TCF7	Transcription factor 7 (T-cell specific, HMG-box)
	WWTR1	WW domain containing transcription regulator 1		
Sequence-specific DNA binding transcriptional factor activity	ATF3	Activating transcription factor 3	CUX2	Cut-like homeobox 2
	ATF7	Activating transcription factor 7	FOXJ1	Forkhead box J1
	DLX3	Distal-less homeobox 3	MYCN	v-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)
	DMRT1	Doublesex and mab-3 related transcription factor 1		
	DMRT2	Doublesex and mab-3 related transcription factor 2	VSX1	Visual system homeobox 1
	DUXA	Double homeobox A	ZNF215	Zinc finger protein 215
	HNF4A	Hepatocyte nuclear factor 4, alpha	ZNF397	Zinc finger protein 397
	IRX2	Iroquois homeobox 2	ZNF81	Zinc finger protein 81
	KLF2	Kruppel-like factor 2 (lung)	ZSCAN5B	Zinc finger and SCAN domain containing 5B
	LEF1	Lymphoid enhancer-binding factor 1		
	MSC	Musculin		
	NANOGNB	NANOG neighbor homeobox		
	NR1I3	Nuclear receptor subfamily 1, group I, member 3		
	NR4A2	Nuclear receptor subfamily 4, group A, member 2		
	PAX6	Paired box 6		
	PRDM1	PR domain containing 1, with ZNF domain		
	RBPJL	Recombination signal binding protein for immunoglobulin kappa J region-like		
	SOX9	SRY (sex determining region Y)-box 9		
	VSX1	Visual system homeobox 1		
	ZNF238	Zinc finger protein 238		

	ZSCAN5D	Zinc finger and SCAN domain containing 5D		
Chromatin and histone modifications	BRD8 KAT6B RBM14 SUPT3H TNP1	Bromodomain containing 8 K(lysine) acetyltransferase 6B RNA binding motif protein 14 Suppressor of Ty 3 homolog (S. cerevisiae) Transition protein 1 (during histone to protamine replacement)	BRCC3 BRPF3 NAT8 PRDM9 SETD3 TDRD3 UTY	BRCA1/BRCA2-containing complex, subunit 3 Bromodomain and PHD finger containing, 3 N-acetyltransferase 8 (GCN5-related, putative) PR domain containing 9 SET domain containing 3 Tudor domain containing 3 Ubiquitously transcribed tetratricopeptide repeat gene, Y-linked
Nucleosome core			H2AFB2 H2AFJ HIST1H2AA HIST1H4D HIST2H2BF PRM3	H2A histone family, member B2; H2A histone family, member B3 H2A histone family, member J Histone cluster 1, H2aa Histone cluster 1, H4l; histone cluster 4, H4 Histone cluster 2, H2bf Protamine 3