

**HIF-1 α KNOCKDOWN REDUCES GLYCOLYTIC METABOLISM AND
INDUCES CELL DEATH OF HUMAN SYNOVIAL FIBROBLASTS UNDER
NORMOXIC CONDITIONS**

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Table S1. Top up- and down-regulated proteins involved in energy metabolism, apoptotic and cell proliferation pathways with fold change siHIF-1 α (HIF) versus non-silencing (CTRL) siRNA SF less than 0.6 for down-regulated or greater than 2 for up-regulated proteins (in **bold** letter) in at least one of the two comparisons performed.

Down-regulated

Accession#	Name (symbol)	Peptides (95%)	HIF1:CTRL1 (Pval)	HIF2:CTRL2 (Pval)	Biological process (GO-Gene Ontology)
P09211	Glutathione S-transferase P (GSTP1)	11	0.70 (0.71)	0.43 (0.42)	Glutathione metabolic process (GO:0006749) Negative regulation of apoptotic process (GO:0043066)
P24752	Acetyl-CoA acetyltransferase (ACAT1)	2	0.59 (0.41)	1.01 (0.97)	Acetyl-CoA biosynthetic process (GO:0006085)
P04406	Glyceraldehyde-3-phosphate dehydrogenase (GAPDH)	18	0.58 (0.66)	0.76 (0.31)	Canonical glycolysis (GO:0061621)
P06733	Alpha-enolase (ENO1)	39	0.55 (<u>0.01</u>)	0.41 (0.18)	Canonical glycolysis (GO:0061621)
P60174	Triosephosphate isomerase (TPI1)	18	0.47 (<u>0.007</u>)	0.80 (0.42)	Canonical glycolysis (GO:0061621)
P16070	CD44 antigen (CD44)	3	0.60 (0.52)	0.64 (0.62)	Negative regulation of apoptotic process (GO:0043066)
P14174	Macrophage migration inhibitory factor (MIF)	3	0.56 (0.23)	0.91 (0.90)	Negative regulation of apoptotic process (GO:0043066)
P09936	Ubiquitin carboxyl-terminal hydrolase isozyme L1 (UCHL1)	3	0.54 (0.18)	0.95 (0.92)	Cell proliferation (GO:0008283)
P05556	Integrin beta-1 (ITGB1)	2	0.53 (0.38)	0.95 (0.80)	Positive regulation of apoptotic process (GO:0043065)

Up-regulated

Accession#	Name (symbol)	Peptides (95%)	HIF1:CTRL1 (Pval)	HIF2:CTRL2 (Pval)	Biological process (GO-Gene Ontology)
P40926	Malate dehydrogenase (MDH2)	6	2.03 (0.14)	1.74 (0.14)	Gluconeogenesis (GO:0006094)
Q16822	Phosphoenolpyruvate carboxykinase (PCK2)	1	2.15 (0.24)	1.26 (0.75)	Gluconeogenesis (GO:0006094)
Q9NQC3	Reticulon-4 (RTN4)	3	3.66 (0.31)	2.21 (0.41)	Apoptotic process (GO:0006915)
P00441	Superoxide dismutase (SOD1)	1	2.91 (0.22)	1.51 (0.48)	Positive regulation of apoptotic process (GO:0043065)
P27797	Calreticulin (CALR)	16	2.61 (0.47)	1.45 (0.59)	Regulation of apoptotic process (GO:0042981)
P35580	Myosin-10 (MYH10)	3	2.21 (0.29)	1.71 (0.58)	Cell proliferation (GO:0008283)

Table S2. iTRAQ analysis of protein extracts from HIF-1 α and control silenced SF

N	Unused	Total	% Cov	Accession #	Name	Peptides (95%)	HIF1:CTRL1		HIF2:CTRL2	
							115:114	Pval	117:116	Pval
1	155,37	155,37	51,2	sp Q09666 AHNK_HUMAN	Neuroblast differentiation-associated protein	101	2,0701	0,0018	1,8197	0
2	112,64	112,64	88,4	sp P08670 VIME_HUMAN	Vimentin	212	1,7865	0,9426	1,0666	0,8417
3	88,03	88,03	40	sp P21333 FLNA_HUMAN	Filamin-A	64	1,4454	0,0659	1,7865	0,3605
4	72,92	72,92	43,3	sp P35579 MYH9_HUMAN	Myosin-9	53	1,6749	0,0516	0,9204	0,1025
5	70,19	70,19	39,7	sp Q15149 PLEC_HUMAN	Plectin	39	1,5417	0,0384	0,9204	0,7883
6	58,56	58,56	74,7	sp P60709 ACTB_HUMAN	Actin, cytoplasmic 1	82				
7	56,11	56,11	70,2	sp P07355 ANXA2_HUMAN	Annexin A2	45	2,9648	0,1124	0,7244	0,0411
8	54,96	54,96	58,1	sp P11021 GRP78_HUMAN	78 kDa glucose-regulated protein	47	0,8166	0,3279	1,1169	0,4235
9	46,01	46,01	71,2	sp P06733 ENOA_HUMAN	Alpha-enolase 1	39	0,5495	0,0132	0,413	0,1821
10	41,96	41,96	61	sp P02545 LMNA_HUMAN	Prelamin-A/C	29	0,9376	0,5736	1,5849	0,0894
11	40,64	40,64	78	sp P14618 KPVM_HUMAN	Pyruvate kinase isozymes M1/M2	31	1,3677	0,2733	0,7379	0,9332
12	40,5	40,5	56,9	sp P07237 PDIA1_HUMAN	Protein disulfide-isomerase	29	1,028	0,7307	1,028	0,6669
13	38,68	38,68	46,3	sp Q43707 ACTN4_HUMAN	Alpha-actinin-4	27	1,3428	0,9272	1,3552	0,5232
14	36,14	36,14	55,2	sp P07437 TBB5_HUMAN	Tubulin beta chain	46	0,7943	0,6794	0,8551	0,8194
15	34,13	36,17	48,3	sp P11142 HSP7C_HUMAN	Heat shock cognate 71 kDa protein	32	0,912	0,6795	0,9462	0,8022
16	32,62	32,62	27,5	sp Q9Y490 TLN1_HUMAN	Talin-1	19	1	0,62	0,9908	0,963
17	32	32	50,8	sp Q71U36 TBA1A_HUMAN	Tubulin alpha-1A chain	37				
18	30,07	30,07	58,1	sp P08758 ANXA5_HUMAN	Annexin A5	28	2,5119	0,5175	0,6668	0,0651
19	30,02	30,02	75,4	sp P04083 ANXA1_HUMAN	Annexin A1	16	0,6368	0,688	1,2706	0,8277
20	26,11	26,11	47,5	sp P30101 PDIA3_HUMAN	Protein disulfide-isomerase A3	19	1,028	0,2575	0,929	0,1175
21	25,43	25,43	39	sp P14625 ENPL_HUMAN	Endoplasmic	18	0,912	0,1637	0,9817	0,3521
22	23,28	23,28	48,3	sp Q16555 DPYL2_HUMAN	Dihydropyrimidinase-related protein 2	16	0,9376	0,6596	0,9817	0,966
23	21,75	21,75	69,5	sp P60174 TPIS_HUMAN	Triosephosphate isomerase	18	0,4699	0,0067	0,8017	0,4214
24	21,24	23,29	34,5	sp P08238 HS90B_HUMAN	Heat shock protein HSP 90-beta	12	1,1803	0,2146	1,0186	0,634
25	21,03	25,05	18,2	sp Q14315 FLNC_HUMAN	Filamin-C	13	1	0,8315	0,9727	0,9111
26	20,5	20,5	27,1	sp P27797 CALR_HUMAN	Calreticulin	16	2,6062	0,4754	1,4454	0,5918
27	20,46	20,46	58,1	sp P67936 TPM4_HUMAN	Tropomyosin alpha-4 chain	15	0,8091	0,8756	1,2023	0,573
28	20,02	20,02	42,6	sp Q05682 CALD1_HUMAN	Caldesmon	14	2,0324	0,079	1,7378	0,1481
29	20	20	75,2	sp P62937 PPIA_HUMAN	Peptidyl-prolyl cis-trans isomerase A	18	0,4786	0,0692	1,1695	0,4635
30	19,89	19,89	34,5	sp P02452 CO1A1_HUMAN	Collagen alpha-1(I) chain	10	0,912	0,5911	1	0,9363
31	19,35	19,35	33,1	sp P26038 MOES_HUMAN	Moesin	12	1,6904	0,1876	1,8197	0,0345
32	18,21	18,21	72,6	sp Q01995 TAGL_HUMAN	Transgelin	14	3,1915	0,0203	0,7943	0,9641
33	16,7	16,7	36,6	sp Q06701 UGDH_HUMAN	UDP-glucose 6-dehydrogenase	11	1,0471	0,6143	1	0,9867
34	16,41	16,41	40,8	sp P13489 RINI_HUMAN	Ribonuclease inhibitor	11	0,673	0,5695	0,8872	0,9749
35	16,18	16,18	68,1	sp P04406 G3P_HUMAN	Glyceraldehyde-3-phosphate dehydrogenase	18	0,5808	0,6594	0,7586	0,3079
36	16,07	16,07	56,6	sp P04075 ALDOA_HUMAN	Fructose-bisphosphate aldolase A	19	0,9204	0,8686	0,8872	0,455
37	16,01	16,01	77	sp P09382 LEG1_HUMAN	Galectin-1	18	1,9055	0,7689	0,3981	0,5486
38	16	16	50,8	sp Q06830 PRDX1_HUMAN	Peroxiredoxin-1	12	0,9727	0,4027	1,0666	0,0789
39	15,89	15,89	54,8	sp P37802 TAGL2_HUMAN	Transgelin-2	14	0,955	0,7533	0,863	0,3483
40	15,66	15,66	43,7	sp P00558 PGK1_HUMAN	Phosphoglycerate kinase 1	10	0,871	0,9281	0,9204	0,7927
41	15,26	15,26	20,5	sp P12111 CO6A3_HUMAN	Collagen alpha-3(VI) chain	10	1,1912	0,3779	2,421	0,0894
42	15,26	15,26	19,7	sp P13639 EF2_HUMAN	Elongation factor 2	9	1,1169	0,245	1,0186	0,4864
43	14,73	14,73	29,6	sp P38646 GRP75_HUMAN	Stress-70 protein, mitochondrial	9	0,9727	0,9621	0,9727	0,6494

44	14,72	14,72	41,5	sp Q07065 CKAP4_HUMAN	Cytoskeleton-associated protein 4	10	0,5754	0,1222	1,0666	0,8589
45	14,01	14,01	56,3	sp P62805 H4_HUMAN	Histone H4	11	6,9823	0,0954	1,2823	0,1167
46	14	14	31,2	sp P68104 EF1A1_HUMAN	Elongation factor 1-alpha 1	13	1,0666	0,6019	0,929	0,3417
47	14	14	48,6	sp P09211 GSTP1_HUMAN	Glutathione S-transferase P	11	0,6982	0,7137	0,4325	0,4249
48	13,74	13,74	58,6	sp P07737 PROF1_HUMAN	Profilin-1	15	1,4997	0,576	0,5012	0,115
49	13,64	13,64	38,8	sp P06576 ATPB_HUMAN	ATP synthase subunit beta, mitochondrial	10	1,0093	0,7514	0,9638	0,5535
50	13,52	13,52	19,1	sp Q00610 CLH1_HUMAN	Clathrin heavy chain 1	7	0,6138	0,3919	1,5996	0,3161
51	13,27	13,27	31	sp Q8NBS9 TXND5_HUMAN	Thioredoxin domain-containing protein 5	7	0,863	0,1087	1	0,6435
52	13,18	13,18	53,5	sp O60664 PLIN3_HUMAN	Perilipin-3	8	0,863	0,5202	0,7311	0,1116
53	13,01	13,01	36,1	sp P50454 SERPH_HUMAN	Serpin H1	11	1,1376	0,7604	0,6368	0,176
54	12,97	12,97	27,3	sp P55072 TERA_HUMAN	Transitional endoplasmic reticulum ATPase	9	0,8241	0,2226	1,0965	0,4224
55	12,56	12,56	59,7	sp P23284 PPIB_HUMAN	Peptidyl-prolyl cis-trans isomerase B	10	0,955	0,4948	0,7244	0,3019
56	12,53	12,53	42,5	sp P63104 1433Z_HUMAN	14-3-3 protein zeta/delta	6	1,0471	0,7907	1,3062	0,1493
57	12,27	12,27	65,6	sp P60660 MYL6_HUMAN	Myosin light polypeptide 6	11	1,0375	0,5057	0,9727	0,5138
58	12,21	12,21	27,8	sp Q96AY3 FKB10_HUMAN	Peptidyl-prolyl cis-trans isomerase	9	1,0568	0,6134	0,9462	0,7204
59	11,58	11,58	34,3	sp P21796 VDAC1_HUMAN	Voltage-dependent anion-selective channel protein 1	6	1	0,9148	1,0568	0,4678
60	11,52	11,52	26,6	sp Q15084 PDIA6_HUMAN	Protein disulfide-isomerase A6	11	0,863	0,9677	0,492	0,7672
61	11,05	11,05	39,5	sp Q6NZI2 PTRF_HUMAN	Polymerase I and transcript release factor	12	1,4723	0,1085	1,4588	0,4775
62	10,97	10,97	34,5	sp P07858 CATB_HUMAN	Cathepsin B	7	1,5996	0,2956	1,5849	0,8625
63	10,9	30,08	39,6	sp P12814 ACTN1_HUMAN	Alpha-actinin-1	18	1,0666	0,6268	1,3062	0,1133
64	10,61	10,61	24,8	sp P07339 CATD_HUMAN	Cathepsin D	9	0,9727	0,6254	0,8872	0,39
65	10,43	10,43	36,9	sp O00299 CLIC1_HUMAN	Chloride intracellular channel protein 1	7	0,7244	0,4902	0,6252	0,2544
66	10,38	10,38	27	sp P08133 ANXA6_HUMAN	Annexin A6	5	2,2699	0,0918	0,6855	0,5552
67	10,01	10,01	36,7	sp P40926 MDHM_HUMAN	Malate dehydrogenase, mitochondrial	6	2,0324	0,1385	1,7378	0,1391
68	10	10	17,7	sp Q9P2E9 RRBP1_HUMAN	Ribosome-binding protein 1	8	1,0471	0,2979	0,8872	0,6099
69	10	10	13,6	sp P22314 UBA1_HUMAN	Ubiquitin-like modifier-activating enzyme 1	8	0,955	0,49	0,9908	0,8752
70	10	10	46	sp Q8N257 H2B3B_HUMAN	Histone H2B type 3-B	15	1,5417	0,4632	1,1695	0,7398
71	10	10	44	sp P23528 COF1_HUMAN	Cofilin-1	8	0,955	0,7759	0,9638	0,5059
72	10	10	49,5	sp P60903 S10AA_HUMAN	Protein S100-A10	9	1,1169	0,3856	1,2589	0,0415
73	10	10	45,6	sp P62158 CALM_HUMAN	Calmodulin	6	2,3988	0,2661	1,5704	0,4475
74	9,77	9,77	16,6	sp Q99715 COCA1_HUMAN	Collagen alpha-1(XII) chain	7	0,9204	0,6066	0,7656	0,4514
75	9,6	9,6	23,8	sp P18206 VINC_HUMAN	Vinculin	6	0,6138	0,2315	0,3373	0,0043
76	9,39	9,39	39,9	sp Q15365 PCBP1_HUMAN	Poly(rC)-binding protein 1	5				
77	8,78	8,78	36,5	sp P25705 ATPA_HUMAN	ATP synthase subunit alpha, mitochondrial	9	0,9376	0,982	1,0471	0,4299
78	8,71	8,71	24,7	sp P08123 CO1A2_HUMAN	Collagen alpha-2(I) chain	7	0,9376	0,678	0,9638	0,868
79	8,54	8,54	24,6	sp P10809 CH60_HUMAN	60 kDa heat shock protein, mitochondrial	9	0,8872	0,3965	0,955	0,289
80	8,37	8,37	17,4	sp Q13813 SPTA2_HUMAN	Spectrin alpha chain, brain	4	1,6904	0,1379	1,1376	0,6843
81	8,34	18,54	43,3	sp Q9BUF5 TBB6_HUMAN	Tubulin beta-6 chain	21	1,0471	0,9049	1,0568	0,8797
82	8,31	8,31	28,4	sp P26641 EF1G_HUMAN	Elongation factor 1-gamma	6	0,863	0,3069	1	0,8826
83	8,16	8,16	23,2	sp Q99536 VAT1_HUMAN	Synaptic vesicle membrane protein VAT-1 homolog	6	1,0471	0,8567	1,1482	0,1724
84	8,08	8,08	20,6	sp P29401 TKT_HUMAN	Transketolase	7	0,9638	0,4713	0,9727	0,8408
85	8,05	8,05	21,1	sp P06396 GELS_HUMAN	Gelsolin	5	0,929	0,645	1,0093	0,8838
86	8	8	14,9	sp P27824 CALX_HUMAN	Calnexin	5	1,1376	0,531	1,0093	0,9137
87	8	8	22,6	sp P00338 LDHA_HUMAN	L-lactate dehydrogenase A chain	7	1,1169	0,4881	0,9638	0,4397
88	8	8	15,3	sp P21589 5NTD_HUMAN	5'-nucleotidase	4	1,0093	0,5166	0,912	0,4527
89	8	8	34,4	sp Q71UI9 H2AV_HUMAN	Histone H2A.V	5	0,8166	0,6261	0,9638	0,9265
90	8	8	12,6	sp P07602 SAP_HUMAN	Proactivator polypeptide	4	1,4723	0,5931	1,5996	0,3552
91	7,92	7,92	39,8	sp P18669 PGAM1_HUMAN	Phosphoglycerate mutase 1	5	0,7447	0,706	0,6427	0,3957

92	7,59	12,22	21,2	sp O75369 FLNB_HUMAN	Filamin-B	10	0,9727	0,7566	1,0765	0,3795
93	7,15	7,15	40,4	sp P62277 RS13_HUMAN	40S ribosomal protein S13	4	1,028	0,5472	0,9908	0,5014
94	7,05	7,05	18	sp P31943 HNRH1_HUMAN	Heterogeneous nuclear ribonucleoprotein H	8	1,0471	0,1159	0,9462	0,1648
95	6,68	6,68	20	sp O43852 CALU_HUMAN	Calumenin	5	1,0375	0,7795	0,912	0,7928
96	6,58	6,58	28,1	sp O60506 HNRPQ_HUMAN	Heterogeneous nuclear ribonucleoprotein Q	3	1,1482	0,371	1,0965	0,6884
97	6,47	6,47	22	sp O43175 SERA_HUMAN	D-3-phosphoglycerate dehydrogenase	3	1,3305	0,325	0,929	0,8148
98	6,46	6,46	40,5	sp P04792 HSPB1_HUMAN	Heat shock protein beta-1	8	0,5808	0,2678	0,6918	0,763
99	6,31	6,31	18,6	sp Q96D15 RCN3_HUMAN	Reticulocalbin-3	4	2,0701	0,2541	1,9953	0,1972
100	6,22	6,22	17,3	sp P15144 AMPN_HUMAN	Aminopeptidase N	5	2,421	0,0315	0,8872	0,8354
101	6,11	6,11	42,9	sp P06748 NPM_HUMAN	Nucleophosmin	5	0,7516	0,4767	1,1482	0,8912
102	6,11	6,11	52,2	sp P84243 H33_HUMAN	Histone H3.3	3	1,5996	0,1649	1,2359	0,4377
103	6,1	6,1	32	sp P60842 IF4A1_HUMAN	Eukaryotic initiation factor 4A-I	4	1,2023	0,3255	0,8395	0,5707
104	6,1	6,1	27,6	sp P12277 KCRB_HUMAN	Creatine kinase B-type	5	0,8017	0,2161	0,879	0,7428
105	6,09	6,09	22	sp P17931 LEG3_HUMAN	Galectin-3	4	1,2589	0,5069	0,955	0,7175
106	6,02	6,02	35,8	sp P30050 RL12_HUMAN	60S ribosomal protein L12	4	1,0568	0,7126	0,9638	0,9533
107	6,01	6,01	43,7	sp P50914 RL14_HUMAN	60S ribosomal protein L14	5	0,8318	0,5736	1,0765	0,6994
108	6	34,14	55,1	sp P68371 TBB2C_HUMAN	Tubulin beta-2C chain	43	0,9727	0,8891	1,0965	0,497
109	6	7,32	22,7	sp Q15366 PCBP2_HUMAN	Poly(rC)-binding protein 2	5	0,8017	0,7581	0,7586	0,2639
110	6	6	8,3	sp Q9NQC3 RTN4_HUMAN	Reticulon-4	3	3,6644	0,3109	2,208	0,411
111	6	6	28,9	sp P62701 RS4X_HUMAN	40S ribosomal protein S4, X isoform	4	0,9204	0,8628	0,9376	0,907
112	6	6	28,9	sp P46782 RS5_HUMAN	40S ribosomal protein S5	4	0,7798	0,5913	1,1803	0,6654
113	6	6	56,2	sp P31949 S10AB_HUMAN	Protein S100-A11	7	0,7047	0,3717	0,4786	0,1
114	6	6	39,1	sp P10599 THIO_HUMAN	Thioredoxin	5	0,7311	0,2533	1,0093	0,5135
115	5,89	5,89	29,9	sp P00387 NB5R3_HUMAN	NADH-cytochrome b5 reductase 3	3	1,1272	0,5231	0,673	0,4758
116	5,61	5,61	31,5	sp P60981 DEST_HUMAN	Destrin	4	0,9908	0,4928	0,2938	0,1546
117	5,55	5,56	42,7	sp P16403 H12_HUMAN	Histone H1.2	4	0,6194	0,3458	1,3428	0,4358
118	5,5	5,5	19,7	sp P19338 NUCL_HUMAN	Nucleolin	3	0,7727	0,9454	1,0186	0,9359
119	5,37	5,37	32,9	sp P15531 NDKA_HUMAN	Nucleoside diphosphate kinase A	5	0,9376	0,7556	1,028	0,7597
120	5,32	5,32	34,5	sp P09936 UCHL1_HUMAN	Ubiquitin carboxyl-terminal hydrolase isozyme L1	3	0,5445	0,1814	0,9462	0,9197
121	5,22	7,52	26,7	sp P08107 HSP71_HUMAN	Heat shock 70 kDa protein 1A/1B	5	1,028	0,8787	1,028	0,668
122	5,16	5,16	15,1	sp O15460 P4HA2_HUMAN	Prolyl 4-hydroxylase subunit alpha-2	3	0,8872	0,657	0,7112	0,2396
123	4,82	4,82	22,8	sp Q96AG4 LRC59_HUMAN	Leucine-rich repeat-containing protein 59	3	0,9204	0,8496	0,9376	0,8893
124	4,77	4,77	17,9	sp Q01082 SPTB2_HUMAN	Spectrin beta chain, brain 1	2	5,5976	0,0892	1,0965	0,8348
125	4,68	4,68	12,9	sp Q9NZN4 EHD2_HUMAN	EH domain-containing protein 2	3	1,2359	0,1709	0,955	0,7136
126	4,56	4,56	19,8	sp P26447 S10A4_HUMAN	Protein S100-A4	2	0,6668	0,3238	0,2992	0,1146
127	4,46	4,46	68,2	sp P63313 TYB10_HUMAN	Thymosin beta-10	3	1,1588	0,758	1,1695	0,751
128	4,42	4,42	21,4	sp P41250 SYG_HUMAN	Glycyl-tRNA synthetase	2	0,7727	0,3718	0,863	0,1706
129	4,36	4,36	18,1	sp P42224 STAT1_HUMAN	Signal transducer and activator of transcription 1-alpha/beta	3	1,2023	0,4909	1,0186	0,9723
130	4,27	4,27	19,9	sp P00367 DHE3_HUMAN	Glutamate dehydrogenase 1, mitochondrial	3	0,9376	0,9007	1,1066	0,7299
131	4,09	4,09	34,9	sp P29692 EF1D_HUMAN	Elongation factor 1-delta	2	1,0186	0,8506	1	0,9914
132	4,09	4,09	13,8	sp Q96HC4 PDLI5_HUMAN	PDZ and LIM domain protein 5	2	1,2246	0,6895	1,1272	0,8041
133	4,07	4,07	29,2	sp P19105 ML12A_HUMAN	Myosin regulatory light chain 12A	5	0,9817	0,9612	0,8551	0,6557
134	4,02	4,02	14	sp P05023 AT1A1_HUMAN	Sodium/potassium-transporting ATPase subunit alpha-1	2	0,912	0,4444	1,0186	0,726
135	4,02	4,02	18,4	sp P40121 CAPG_HUMAN	Macrophage-capping protein	3	0,871	0,5121	0,9908	0,9809
136	4,01	4,01	13,9	sp O95302 FKBP9_HUMAN	Peptidyl-prolyl cis-trans isomerase	2	0,9908	0,9647	1,1272	0,3699
137	4,01	4,01	19,6	sp P61158 ARP3_HUMAN	Actin-related protein 3	2	0,787	0,6648	0,4246	0,2769
138	4,01	4,01	32,2	sp O95336 6PGL_HUMAN	6-phosphogluconolactonase	2	0,7447	0,541	0,787	0,688
139	4	38,2	61	sp P68032 ACTC_HUMAN	Actin, alpha cardiac muscle 1	43	1,0864	0,8469	0,8551	0,7702

140	4	32	50,8	sp P68363 TBA1B_HUMAN	Tubulin alpha-1B chain	37	0,8954	0,7982	0,9462	0,8681
141	4	10	46,8	sp Q99879 H2B1M_HUMAN	Histone H2B type 1-M	16	0,9638	0,9598	1,0375	0,9746
142	4	4	22,2	sp P49368 TCPG_HUMAN	T-complex protein 1 subunit gamma	2	0,8872	0,7612	0,8091	0,5578
143	4	4	30,8	sp Q15019 SEPT2_HUMAN	Septin-2	2	0,912	0,4424	1,1695	0,1464
144	4	4	34,5	sp P62753 RS6_HUMAN	40S ribosomal protein S6	3	1,4997	0,548	1,2023	0,661
145	4	4	36	sp P61247 RS3A_HUMAN	40S ribosomal protein S3a	4	0,7798	0,5881	0,929	0,8636
146	4	4	15,6	sp P52272 HNRPM_HUMAN	Heterogeneous nuclear ribonucleoprotein M	2	1,4454	0,5102	0,8472	0,7612
147	4	4	53,4	sp P62847 RS24_HUMAN	40S ribosomal protein S24	2	0,8872	0,821	1,556	0,4549
148	4	4	18	sp P50395 GDIB_HUMAN	Rab GDP dissociation inhibitor beta	2	1,7378	0,3652	0,7447	0,5768
149	4	4	33,6	sp P08865 RSSA_HUMAN	40S ribosomal protein SA	2	1,2246	0,6618	1,0375	0,8035
150	4	4	20,9	sp P07910 HNRPC_HUMAN	Heterogeneous nuclear ribonucleoproteins C1/C2	2	0,8954	0,855	1,0965	0,7936
151	4	4	19,5	sp P07195 LDHB_HUMAN	L-lactate dehydrogenase B chain	2	1,2589	0,1427	1,1588	0,1791
152	4	4	20,7	sp Q14847 LASP1_HUMAN	LIM and SH3 domain protein 1	2	1,1376	0,8213	1,0765	0,8335
153	4	4	14,1	sp Q01518 CAP1_HUMAN	Adenylyl cyclase-associated protein 1	3	0,4613	0,3025	0,7656	0,6315
154	4	4	13,5	sp P78371 TCPB_HUMAN	T-complex protein 1 subunit beta	2	1,1588	0,687	0,4246	0,2067
155	4	4	38,8	sp P46778 RL21_HUMAN	60S ribosomal protein L21	2	0,9036	0,8482	1,5417	0,462
156	4	4	21,1	sp P45880 VDAC2_HUMAN	Voltage-dependent anion-selective channel protein 2	2	1,0471	0,811	0,7943	0,4923
157	4	4	13,4	sp P15289 ARSA_HUMAN	Arylsulfatase A	2	1	0,9079	1,6596	0,2698
158	4	4	20,1	sp P09525 ANXA4_HUMAN	Annexin A4	2	1,1272	0,6263	0,9036	0,69
159	4	4	19,2	sp P04439 1A03_HUMAN	HLA class I histocompatibility antigen, A-3 alpha chain	2	0,8954	0,7544	0,8318	0,8517
160	4	4	28,6	sp P62906 RL10A_HUMAN	60S ribosomal protein L10a	2	1,0765	0,3483	0,9727	0,8748
161	4	4	32,9	sp P62829 RL23_HUMAN	60S ribosomal protein L23	3	0,8472	0,9433	19,2309	0,3582
162	4	4	18,1	sp P52565 GDIR1_HUMAN	Rho GDP-dissociation inhibitor 1	3	1,2706	0,4101	1,1272	0,6885
163	4	4	22,1	sp P04179 SODM_HUMAN	Superoxide dismutase [Mn], mitochondrial	3	1,0568	0,3701	1,028	0,6428
164	4	4	27,9	sp Q6IS14 IF5AL_HUMAN	Eukaryotic translation initiation factor 5A-1-like	3	0,7798	0,6339	1,5417	0,4392
165	4	4	42	sp P60866 RS20_HUMAN	40S ribosomal protein S20	2	1,0375	0,9225	0,7178	0,5637
166	4	4	11,9	sp P43307 SSRA_HUMAN	Translocon-associated protein subunit alpha	2	1,977	0,2812	0,8318	0,9157
167	4	4	24,8	sp P30044 PRDX5_HUMAN	Peroxiredoxin-5, mitochondrial	3	1,1803	0,9715	1,3305	0,2742
168	4	4	29,7	sp P13987 CD59_HUMAN	CD59 glycoprotein	4	0,9817	0,9829	1,0568	0,8921
169	4	4	49	sp P04080 CYTB_HUMAN	OS=Homo sapiens GN=CSTB PE=1 SV=2	2	1,0765	0,87	1,0186	0,9541
170	4	4	20,2	sp Q75915 PRAF3_HUMAN	PRA1 family protein 3	2	1,0765	0,6079	0,8017	0,62
171	4	4	25	sp P62942 FKB1A_HUMAN	Peptidyl-prolyl cis-trans isomerase	2	1,6749	0,5783	1,2823	0,7255
172	4	4	9,8	sp P24534 EF1B_HUMAN	Elongation factor 1-beta	3	1,0093	0,915	1	0,979
173	4	4	17,4	sp P14174 MIF_HUMAN	Macrophage migration inhibitory factor	3	0,5649	0,2341	0,912	0,9018
174	4	4	13,7	sp P02511 CRYAB_HUMAN	Alpha-crystallin B chain	2	1,9231	0,5287	1,7378	0,5803
175	3,8	3,8	19	sp P50995 ANX11_HUMAN	Annexin A11	2	1,2706	0,6174	1,1376	0,693
176	3,7	3,7	10,6	sp P14314 GLU2B_HUMAN	Glucosidase 2 subunit beta	2	1,0568	0,8792	1,0765	0,9768
177	3,65	3,65	15,7	sp P30040 ERP29_HUMAN	Endoplasmic reticulum resident protein 29	2	1,0568	0,6679	0,9036	0,8555
178	3,59	3,59	27,4	sp P84103 SRSF3_HUMAN	Serine/arginine-rich splicing factor 3	2	0,6918	0,4578	0,863	0,7341
179	3,54	3,54	57	sp P62987 RL40_HUMAN	Ubiquitin-60S ribosomal protein L40	4	0,673	0,4924	1,803	0,3368
180	3,18	3,18	26,7	sp O95865 DDAH2_HUMAN	N(G),N(G)-dimethylarginine dimethylaminohydrolase 2	2	0,9376	0,8607	0,8241	0,5806
181	3,11	3,11	9,7	sp Q14974 IMB1_HUMAN	Importin subunit beta-1	2	0,7112	0,719	0,5012	0,3021
182	3,09	3,09	41,2	sp P26373 RL13_HUMAN	60S ribosomal protein L13	3	0,955	0,981	1,2589	0,4265
183	3,02	3,02	44,4	sp P06703 S10A6_HUMAN	Protein S100-A6	2	1,4322	0,2872	0,7379	0,3247
184	3	12,33	20,8	sp P07900 HS90A_HUMAN	Heat shock protein HSP 90-alpha	7	5,5976	0,0533	0,8241	0,3186
185	2,93	4,08	26,6	sp P16401 H15_HUMAN	Histone H1.5	2				
186	2,83	2,83	19,5	sp P49588 SYAC_HUMAN	Alanyl-tRNA synthetase, cytoplasmic	2	1,1588	0,3861	0,955	0,7526
187	2,79	2,79	20,5	sp P40939 ECHA_HUMAN	Trifunctional enzyme subunit alpha, mitochondrial	3	1,0568	0,7164	0,787	0,2251

188	2,73	2,73	27,5	sp Q9Y2B0 CNPY2_HUMAN	Protein canopy homolog 2	2	1,0093	0,9889	0,9036	0,9567
189	2,7	2,7	14	sp Q8IVF2 AHNK2_HUMAN	Protein AHNK2	2	1,1169	0,1847	1,4454	0,0954
190	2,63	2,63	27,5	sp P62857 RS28_HUMAN	40S ribosomal protein S28	2	6,4863	0,2644	1,4191	0,3935
191	2,61	2,61	10,9	sp P16070 CD44_HUMAN	CD44 antigen	3	0,597	0,5247	0,6427	0,6169
192	2,6	2,6	10,2	sp P46940 IQGA1_HUMAN	Ras GTPase-activating-like protein IQGAP1	2	1,1376	0,6233	2,2284	0,2595
193	2,58	2,58	12,9	sp Q92841 DDX17_HUMAN	Probable ATP-dependent RNA helicase DDX17	2	1,1272	0,6416	1,0765	0,7435
194	2,48	5,43	24,3	sp P08729 K2C7_HUMAN	Keratin, type II cytoskeletal 7	4	1,1066	0,8232	1,4454	0,5146
195	2,47	2,47	10,4	sp Q02878 RL6_HUMAN	60S ribosomal protein L6	2	0,9376	0,9038	0,9036	0,7875
196	2,41	2,41	19,4	sp Q14764 MVP_HUMAN	Major vault protein	2	1,1912	0,7159	1,2134	0,698
197	2,38	2,38	6,9	sp P34932 HSP74_HUMAN	Heat shock 70 kDa protein 4	3	1,0965	0,8783	1	0,7915
198	2,34	2,34	11,8	sp P55209 NP1L1_HUMAN	Nucleosome assembly protein 1-like 1	2	0,9376	0,8716	1,1066	0,776
199	2,33	2,33	39,2	sp P61604 CH10_HUMAN	10 kDa heat shock protein, mitochondrial	1	1,0471	0,3199	1,0093	0,7067
200	2,31	2,31	9,8	sp Q02818 NUCB1_HUMAN	Nucleobindin-1	1	0,929	0,6602	0,6607	0,288
201	2,29	2,29	42,1	sp P62269 RS18_HUMAN	40S ribosomal protein S18	1	2,7542	0,2262	1,9055	0,3385
202	2,28	2,28	31,5	sp P61978 HNRPK_HUMAN	Heterogeneous nuclear ribonucleoprotein K	1	1,1803	0,0333	0,6792	0,0795
203	2,2	2,2	13,5	sp P04843 RPN1_HUMAN	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1	2	0,7178	0,4118	1,0864	0,9964
204	2,17	2,17	15,8	sp O75396 SC22B_HUMAN	Vesicle-trafficking protein SEC22b	1	1,0864	0,9228	1,0765	0,8572
205	2,14	2,14	23,7	sp P30041 PRDX6_HUMAN	Peroxiredoxin-6	1	1,1066	0,8333	1,0093	0,9632
206	2,11	6,22	63,1	sp Q6F113 H2A2A_HUMAN	Histone H2A type 2-A	9	0,8318	0,7056	0,871	0,7537
207	2,11	2,11	9,7	sp P53396 ACLY_HUMAN	ATP-citrate synthase	1	1,1588	0,6672	0,863	0,6711
208	2,09	2,09	19	sp Q9ULV4 COR1C_HUMAN	Coronin-1C	1	1	0,931	0,8954	0,5913
209	2,06	2,06	18,6	sp Q02809 PLOD1_HUMAN	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	1	0,871	0,5434	0,912	0,6461
210	2,06	2,06	13	sp Q15293 RCN1_HUMAN	Reticulocalbin-1	2	1	0,9789	0,8954	0,8381
211	2,05	4	33	sp P09972 ALDOC_HUMAN	Fructose-bisphosphate aldolase C	3				
212	2,04	2,04	32,3	sp P22626 ROA2_HUMAN	Heterogeneous nuclear ribonucleoproteins A2/B1	1	0,8091	0,6856	0,8395	0,7534
213	2,04	2,04	16,4	sp Q99497 PARK7_HUMAN	Protein DJ-1	1	0,912	0,7449	0,8091	0,7507
214	2,03	2,14	22,5	sp Q8WWI1 LMO7_HUMAN	LIM domain only protein 7	3	1,1169	0,2988	1,1066	0,3559
215	2,03	2,03	26,7	sp P36578 RL4_HUMAN	60S ribosomal protein L4	2	3,4674	0,1927	0,7047	0,5471
216	2,03	2,03	9,9	sp O00159 MYO1C_HUMAN	Myosin-1c	1				
217	2,03	2,03	26,5	sp O15173 PGRC2_HUMAN	Membrane-associated progesterone receptor component 2	1	1,1376	0,9355	0,879	0,6491
218	2,02	2,02	15,7	sp Q00341 VIGLN_HUMAN	Vigilin	1	1,1803	0,4568	1,0375	0,938
219	2,02	2,02	26,8	sp P83731 RL24_HUMAN	60S ribosomal protein L24	1	1,028	0,9435	1,1066	0,8308
220	2,01	2,02	7,6	sp Q3SY69 AL1L2_HUMAN	Probable 10-formyltetrahydrofolate dehydrogenase ALDH1L2	1	0,7379	0,4316	0,9817	0,7642
221	2,01	2,01	12,9	sp Q00839 HNRPU_HUMAN	Heterogeneous nuclear ribonucleoprotein U	2	0,9204	0,8778	1,4191	0,5282
222	2,01	2,01	34,5	sp P15880 RS2_HUMAN	40S ribosomal protein S2	1	0,929	0,8926	0,9036	0,8476
223	2,01	2,01	29,8	sp P35232 PHB_HUMAN	Prohibitin	2	0,7178	0,5628	1,2706	0,6387
224	2,01	2,01	8,9	sp P23381 SYWC_HUMAN	Tryptophanyl-tRNA synthetase, cytoplasmic	1	0,5395	0,0992	0,5495	0,1662
225	2	58,56	74,7	sp P63261 ACTG_HUMAN	Actin, cytoplasmic 2	89				
226	2	30,13	50,8	sp Q9BVA1 TBB2B_HUMAN	Tubulin beta-2B chain	37	1,4322	0,5333	0,9727	0,963
227	2	30	45,7	sp Q9BQE3 TBA1C_HUMAN	Tubulin alpha-1C chain	32	0,2831	0,193	0,5152	0,3441
228	2	7,68	20,1	sp P15311 EZRI_HUMAN	Ezrin	5	1,5849	0,4451	1,0765	0,8692
229	2	5,42	14,2	sp P35580 MYH10_HUMAN	Myosin-10	3	2,208	0,2881	1,7061	0,3968
230	2	4,31	31,4	sp P27348 1433T_HUMAN	14-3-3 protein theta	2	0,8551	0,7701	1,5276	0,465
231	2	2,01	12,6	sp P13674 P4HA1_HUMAN	Prolyl 4-hydroxylase subunit alpha-1	1	0,929	0,8417	0,5598	0,3668
232	2	2	20,2	sp P33176 KINH_HUMAN	Kinesin-1 heavy chain	2	0,3105	0,2078	0,4246	0,276
233	2	2	9,1	sp P07814 SYEP_HUMAN	Bifunctional aminoacyl-tRNA synthetase	1	1,0375	0,9375	0,9638	0,9417
234	2	2	21,6	sp P04264 K2C1_HUMAN	Keratin, type II cytoskeletal 1	1	0,2655	0,196	0,2992	0,3323

235	2	2	10,4	sp Q8WUM4 PDC6I_HUMAN	Programmed cell death 6-interacting protein	1	0,6026	0,426	3,1915	0,206
236	2	2	17,5	sp P43243 MATR3_HUMAN	Matrin-3	1	1,0186	0,9607	0,8318	0,7181
237	2	2	15,1	sp O95782 AP2A1_HUMAN	AP-2 complex subunit alpha-1	1	1,0568	0,8812	1,7378	0,4243
238	2	2	11,2	sp Q9BSJ8 ESYT1_HUMAN	Extended synaptotagmin-1	1	0,8954	0,582	0,7311	0,7984
239	2	2	11,3	sp Q32P28 P3H1_HUMAN	Prolyl 3-hydroxylase 1	1	1,5996	0,4379	1,6596	0,4137
240	2	2	14,9	sp P10253 LYAG_HUMAN	Lysosomal alpha-glucosidase	1	1	0,9903	1,406	0,5315
241	2	2	26,3	sp P09651 ROA1_HUMAN	Heterogeneous nuclear ribonucleoprotein A1	2	0,9204	0,8793	0,863	0,7807
242	2	2	8,8	sp P05556 ITB1_HUMAN	Integrin beta-1	2	0,5297	0,3793	0,9462	0,8043
243	2	2	10	sp Q9Y678 COPG_HUMAN	Coatomer subunit gamma	1				
244	2	2	14,8	sp Q5JTV8 TOIP1_HUMAN	Torsin-1A-interacting protein 1	1	1,1912	0,6296	1,3552	0,6733
245	2	2	13,9	sp Q13554 KCC2B_HUMAN	Calcium/calmodulin-dependent protein kinase type II subunit beta	1	1,3677	0,4335	1,0471	0,8144
246	2	2	13,5	sp P50990 TCPQ_HUMAN	T-complex protein 1 subunit theta	1	1,0666	0,8912	0,7586	0,6195
247	2	2	19	sp P49411 EFTU_HUMAN	Elongation factor Tu, mitochondrial	1	1,4588	0,503	0,8954	0,8327
248	2	2	27,8	sp P31942 HNRH3_HUMAN	Heterogeneous nuclear ribonucleoprotein H3	2	0,0711	0,3006	0,7943	0,7342
249	2	2	15,6	sp P20073 ANXA7_HUMAN	Annexin A7	1	1,0765	0,839	0,9462	0,7619
250	2	2	16,2	sp P13797 PLST_HUMAN	Plastin-3	1	0,871	0,8013	0,9376	0,9075
251	2	2	10,8	sp O94925 GLSK_HUMAN	Glutaminase kidney isoform, mitochondrial	1	0,673	0,5053	1,1482	0,7667
252	2	2	18,9	sp Q9Y617 SERC_HUMAN	Phosphoserine aminotransferase	1	1,4588	0,5014	0,929	0,8993
253	2	2	16,5	sp Q8N7G0 PO5F2_HUMAN	POU domain, class 5, transcription factor 2	1	0,9462	0,8798	0,879	0,9002
254	2	2	10,5	sp Q14956 GPNMB_HUMAN	Transmembrane glycoprotein NMB	1	1,8535	0,3554	1,6749	0,4088
255	2	2	12,8	sp Q12797 ASPH_HUMAN	Aspartyl/asparaginyl beta-hydroxylase	1	0,9638	0,6922	0,9908	0,5056
256	2	2	18,2	sp P13645 K1C10_HUMAN	Keratin, type I cytoskeletal 10	1	0,1585	0,1343	0,3733	0,2487
257	2	2	26,1	sp P07741 APT_HUMAN	Adenine phosphoribosyltransferase	1	0,9462	0,9202	0,3565	0,2337
258	2	2	30,7	sp O95571 ETHE1_HUMAN	Protein ETHE1, mitochondrial	1	1,0093	0,9527	1	0,776
259	2	2	26,4	sp O75828 CBR3_HUMAN	Carbonyl reductase [NADPH] 3	1	1,1066	0,9279	0,8395	0,5732
260	2	2	36,2	sp Q9Y3U8 RL36_HUMAN	60S ribosomal protein L36	1	1,0864	0,6243	0,8954	0,7626
261	2	2	10	sp Q16822 PCKGM_HUMAN	Phosphoenolpyruvate carboxykinase [GTP], mitochondrial	1	2,1478	0,2433	1,2589	0,7535
262	2	2	21,2	sp Q16698 DECR_HUMAN	2,4-dienoyl-CoA reductase, mitochondrial	1	0,863	0,5875	0,8166	0,8292
263	2	2	14,1	sp P49419 AL7A1_HUMAN	Alpha-aminoadipic semialdehyde dehydrogenase	1	1,556	0,4532	1,028	0,9363
264	2	2	16,2	sp P35998 PR57_HUMAN	26S protease regulatory subunit 7	1	1,7061	0,3995	1,2474	0,6625
265	2	2	17,1	sp P24752 THIL_HUMAN	Acetyl-CoA acetyltransferase, mitochondrial	2	0,5861	0,4093	1,0093	0,9704
266	2	2	26,9	sp P08134 RHOC_HUMAN	Rho-related GTP-binding protein RhoC	1				
267	2	2	14,2	sp Q96CX2 KCD12_HUMAN	BTB/POZ domain-containing protein KCD12	1	1	0,6743	0,955	0,3409
268	2	2	12,6	sp Q13418 ILK_HUMAN	Integrin-linked protein kinase	1	1,2023	0,7029	1,0375	0,9275
269	2	2	21,6	sp Q07021 C1QBP_HUMAN	Complement component 1 Q subcomponent-binding protein, mitochondrial	1	0,8241	0,777	99,0832	0,1568
270	2	2	9,9	sp P54578 UBP14_HUMAN	Ubiquitin carboxyl-terminal hydrolase 14	1	0,8318	0,723	0,7943	0,7233
271	2	2	9,6	sp P17813 EGLN_HUMAN	Endoglin	1	2,9648	0,2182	0,7379	0,5865
272	2	2	26,2	sp P16949 STMN1_HUMAN	Stathmin	1	0,6607	0,4537	0,7798	0,5407
273	2	2	14,7	sp P10644 KAPO_HUMAN	cAMP-dependent protein kinase type I-alpha regulatory subunit	1	0,9727	0,9556	0,9817	0,9583
274	2	2	23,9	sp P10301 RRAS_HUMAN	Ras-related protein R-Ras	1	1,4454	0,5079	1,4723	0,498
275	2	2	25,3	sp P00441 SODC_HUMAN	Superoxide dismutase [Cu-Zn]	1	2,9107	0,2229	1,5136	0,4762
276	2	2	10,9	sp O75569 PRKRA_HUMAN	Interferon-inducible double stranded RNA-dependent protein kinase activator A	1	1,6293	0,4217	0,6546	0,4852
277	2	2	9,3	sp O14979 HNRDL_HUMAN	Heterogeneous nuclear ribonucleoprotein D-like	1	1,0666	0,8783	1,6904	0,4016
278	2	2	10,3	sp O00148 DDX39_HUMAN	ATP-dependent RNA helicase DDX39	2	0,8954	0,8187	0,6918	0,5481
279	2	2	15,7	sp Q9UNL2 SSRG_HUMAN	Translocon-associated protein subunit gamma	2	0,9908	0,6405	1,1695	0,602

280	2	2	17,7	sp Q9UBY9 HSPB7_HUMAN	Heat shock protein beta-7	1	1,2246	0,679	1,0765	0,8743
281	2	2	14,3	sp Q9H444 CHM4B_HUMAN	Charged multivesicular body protein 4b	1				
282	2	2	11,4	sp Q99961 SH3G1_HUMAN	Endophilin-A2	1	1,2706	0,5798	1,2359	0,6932
283	2	2	16,5	sp Q99714 HCD2_HUMAN	3-hydroxyacyl-CoA dehydrogenase type-2	1	1,2589	0,6606	1,3804	0,5337
284	2	2	14,5	sp Q96JY6 PDLI2_HUMAN	PDZ and LIM domain protein 2	1	0,9727	0,6702	1,3677	0,5679
285	2	2	8,7	sp Q8NFI4 F10A5_HUMAN	Putative protein FAM10A5	1	1,4322	0,5203	1,7865	0,3746
286	2	2	21,5	sp P62820 RAB1A_HUMAN	Ras-related protein Rab-1A	4	0,9908	0,4012	0,9908	0,3779
287	2	2	20,3	sp P51149 RAB7A_HUMAN	Ras-related protein Rab-7a	2	0,9908	0,9506	1,0568	0,8574
288	2	2	26	sp P42766 RL35_HUMAN	60S ribosomal protein L35	1	1,2589	0,4122	1,0375	0,7746
289	2	2	9,7	sp P38159 HNRPG_HUMAN	Heterogeneous nuclear ribonucleoprotein G	1	1,2246	0,6813	1,406	0,5323
290	2	2	22,5	sp P30086 PEBP1_HUMAN	Phosphatidylethanolamine-binding protein 1	1	1,3552	0,5726	1,0864	0,856
291	2	2	21,9	sp P30085 KCY_HUMAN	UMP-CMP kinase	1	0,6792	0,5135	0,8241	0,7241
292	2	2	14,4	sp P23396 RS3_HUMAN	40S ribosomal protein S3	1	1,4191	0,5301	0,8318	0,7263
293	2	2	14,4	sp P09497 CLCB_HUMAN	Clathrin light chain B	1	0,8318	0,7384	1	0,9911
294	2	2	7,5	sp P07099 HYEP_HUMAN	Epoxide hydrolase 1	1	1,8197	0,3634	0,7112	0,5544
295	2	2	9,2	sp Q9UL46 PSME2_HUMAN	Proteasome activator complex subunit 2	1				
296	2	2	9,5	sp Q9BVC6 TM109_HUMAN	Transmembrane protein 109	1	1,028	0,9309	1,4723	0,4931
297	2	2	27	sp Q15836 VAMP3_HUMAN	Vesicle-associated membrane protein 3	1	1,3305	0,5856	0,9817	0,9877
298	2	2	12,5	sp Q04760 LGUL_HUMAN	Lactoylglutathione lyase	1	0,6081	0,4312	0,8241	0,719
299	2	2	28,9	sp P63220 RS21_HUMAN	40S ribosomal protein S21	3				
300	2	2	24,4	sp P62854 RS26_HUMAN	40S ribosomal protein S26	1	0,7727	0,6143	1,1482	0,789
301	2	2	13,9	sp P52943 CRIP2_HUMAN	Cysteine-rich protein 2	1	0,6427	0,4655	1,0765	0,8735
302	2	2	8,5	sp P35237 SPB6_HUMAN	Serpin B6	1	0,8872	0,821	0,8017	0,6884
303	2	2	11,4	sp P30084 ECHM_HUMAN	Enoyl-CoA hydratase, mitochondrial	2	0,9908	0,9109	0,8395	0,8503
304	2	2	17	sp P30046 DOPD_HUMAN	D-dopachrome decarboxylase	1	0,5861	0,4058	1,0375	0,9216
305	2	2	10,6	sp P15559 NQO1_HUMAN	NAD(P)H dehydrogenase [quinone] 1	1	1,0186	0,961	1,2589	0,6489
306	2	2	34,9	sp P14854 CX6B1_HUMAN	Cytochrome c oxidase subunit 6B1	1	1,2474	0,6566	1,1912	0,7158
307	2	2	6,7	sp P12236 ADT3_HUMAN	ADP/ATP translocase 3	1	1,1482	0,7673	1,0568	0,8982
308	2	2	40,8	sp Q15847 APM2_HUMAN	Adipose most abundant gene transcript 2 protein	2	1,0186	0,9939	0,929	0,9486
309	2	2	14,4	sp P58546 MTPN_HUMAN	Myotrophin	1	1,4588	0,5027	1,3183	0,5988
310	2	2	11,1	sp P49773 HINT1_HUMAN	Histidine triad nucleotide-binding protein 1	1	0,863	0,6687	1,1912	0,8564
311	2	2	7,5	sp P22061 PIMT_HUMAN	Protein-L-isoaspartate(D-aspartate) O-methyltransferase	1	0,8551	0,7761	1,0375	0,9245
312	2	2	7,8	sp P21291 CSRP1_HUMAN	Cysteine and glycine-rich protein 1	1	1,8535	0,3575	1,2942	0,5958
313	2	2	14	sp P05386 RLA1_HUMAN	60S acidic ribosomal protein P1	2	0,6792	0,5029	0,9204	0,6757
314	2	2	7,8	sp O60888 CUTA_HUMAN	Protein CutA	1	0,6982	0,5919	1,0093	0,9205
315	1,82	2	11,5	sp P00403 COX2_HUMAN	Cytochrome c oxidase subunit 2	1	1,4723	0,4993	1,2246	0,6792
316	1,59	1,59	11,6	sp Q9BS26 ERP44_HUMAN	Endoplasmic reticulum resident protein 44	1	0,955	0,9396	0,8166	0,7047
317	1,54	1,54	5,7	sp P08195 4F2_HUMAN	4F2 cell-surface antigen heavy chain	1	1,2246	0,6888	0,8241	0,722
318	1,46	1,46	29,1	sp P24844 MYL9_HUMAN	Myosin regulatory light polypeptide 9	1	1,4997	0,4826	1,5704	0,4466
319	1,37	1,37	15,9	sp P62318 SMD3_HUMAN	Small nuclear ribonucleoprotein Sm D3	2	0,7798	0,6223	0,9376	0,9791
320	1,35	1,35	17,9	sp P27695 APEX1_HUMAN	DNA-(apurinic or apyrimidinic site) lyase	1				
321	1,33	1,33	12,6	sp Q9NPQ8 RIC8A_HUMAN	Synembryn-A	1	61,9441	0,0173	0,9908	1

Samples were labeled as: siCTRL 1 (CTRL1), 114; siHIF-1 α 1 (HIF1), 115; siCTRL 2 (CTRL2), 116; siHIF-1 α 2 (HIF2), 117.

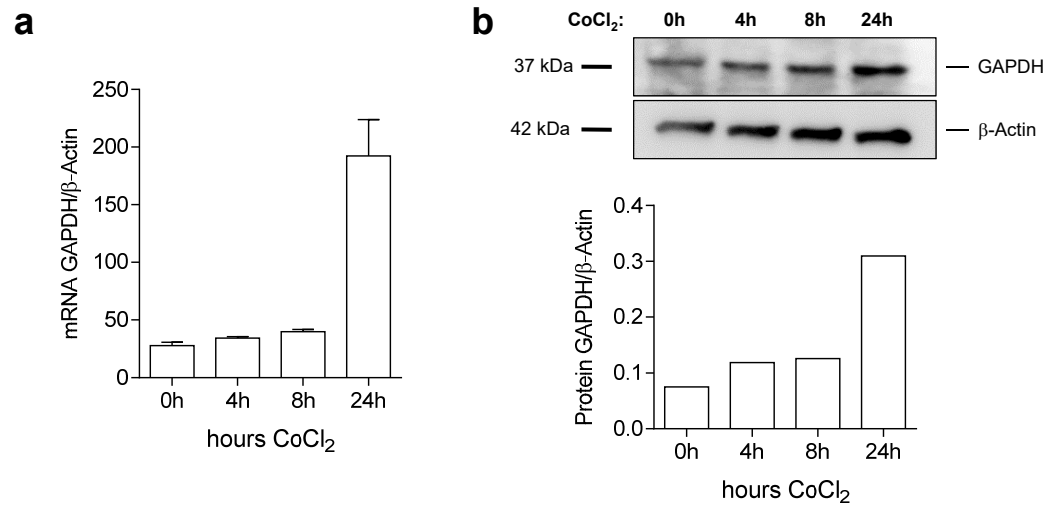
Table columns show unused and total ProtScore, percentage of protein sequence coverage (% Cov), accession number and protein name, number of peptides identified above 95% confidence, and ratio and p-value in all siHIF-siCTRL comparisons.

Table S3. Primer sequences used for quantitative real-time PCR analysis

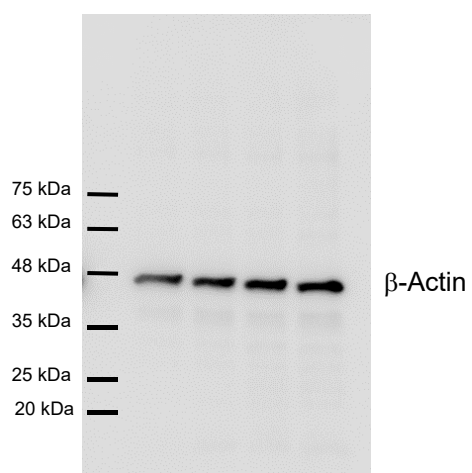
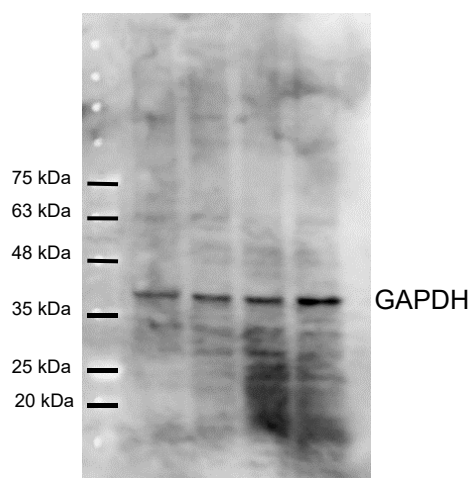
Gene Name	Forward Primer Sequence	Reverse Primer Sequence
HIF-1 α	5'-CCATTAGAAAGCAGTTCCGC-3'	5'-TGGGTAGGAGATGGAGATGC-3'
PDK1	5'-CTATGAAAATGCTAGGCGTCTGT-3'	5'-TGGGATGGTACATAAACCACTTG-3'
GAPDH	5'-TGTTGCCATCAATGACCCCTT-3'	5'-CTCCACGACGTAGTCAGCG-3'
APLN	5'-GTCTCCTCCATAGATTGGTCTGC-3'	5'-GGAATCATCCAAACTACAGCCAG-3'
INHBB	5'-GCCTGTGGCTTTACCTGAAACT-3'	5'-CCTGCTCCTGGAAGTACACTTTG-3'
SDHC	5'-CTGTTGCTGAGACACGTTGGT-3'	5'-ACAGAGGACGGTTTGAACCTA-3'
SUCLG2	5'-CAAAAGACCCTAATGTTGTGGGA-3'	5'-TTCAGCAACCATCACCTTGTT-3'
β -actin	5'-GCGCGGCTACAGCTTCAC-3'	5'-GGCCATCTCTTGCTCGAAGT-3'

HIF-1 α , hypoxia inducible factor 1, alpha subunit; PDK1, pyruvate dehydrogenase kinase, isozyme 1; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; APLN, apelin; INHBB, inhibin beta; SDHC, succinate dehydrogenase complex, subunit C; SUCLG2, succinate-CoA ligase, GDP-forming, beta subunit.

Supplementary Figure S1. Induction of GAPDH by CoCl₂. Time-course of GAPDH induction after treatment with 300μM CoCl₂. **(a)** Expression of GAPDH mRNA in SF by qRT-PCR. β-actin was used as an endogenous reference. Data are mean±SD of triplicates from 2 independent experiments. **(b)** Western blot image of GAPDH and β-actin, and densitometric analysis of GAPDH protein expression normalized to the β-actin level.



Supplementary Figure S2. Full-length blots used to generate Fig S1.



Supplementary Figure S3. Full-length blots used to generate Fig 3.

