

Table 1. Up and down-regulated proteins in differ-SH-SY5Y neural cells with average log2 fold change protein ratios between replicates.

Upregulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P values	Log2 (Fold change)
P27824	Calnexin	CANX	67568	4.5E-03	1.571
P27797	Calreticulin	CALR	48142	3.7E-02	1.072
P09455	Retinol-binding protein 1	RBP1	15850	1.2E-02	0.867
P07602	Prosaposin	PSAP	58113	3.8E-03	0.783
P30101	Protein disulfide-isomerase A3	PDIA3	56782	3.3E-02	0.539
P30044	Peroxiredoxin-5 mitochondrial	PRDX5	22086	2.8E-04	0.483
P07237	Protein disulfide-isomerase	P4HB	57116	1.4E-02	0.370
Q71DI3	Histone H3.2	HIST2H3A	15388	1.4E-02	0.333
Q12905	Interleukin enhancer-binding factor 2	ILF2	43062	2.0E-02	0.330
P08670	Vimentin	VIM	53652	2.3E-03	0.282
Q15084	Protein disulfide-isomerase A6	PDIA6	48121	5.8E-03	0.209
Q06830	Peroxiredoxin-1	PRDX1	22110	9.7E-04	0.197
P14625	Endoplasmic	HSP90B1	92469	6.8E-03	0.167
Q99714	3-hydroxyacyl-CoA dehydrogenase type-2	HSD17B10	26923	3.4E-03	0.156
P09429	High mobility group protein B1	HMGB1	24894	2.5E-02	0.099
P23284	Peptidyl-prolyl cis-trans isomerase B	PPIB	23743	7.0E-03	0.092
P61978	Heterogeneous nuclear ribonucleoprotein K	HNRNPK	50976	3.9E-04	0.085
P07910	Heterogeneous nuclear ribonucleoproteins C1/C2	HNRNPC	33670	3.7E-02	0.072
P0DP23	Calmodulin-1	CALM1	16838	2.6E-02	0.066
P0DP24	Calmodulin-2	CALM2	16838	2.6E-02	0.066
P0DP25	Calmodulin-3	CALM3	16838	2.6E-02	0.066
Q16555	Dihydropyrimidinase-related protein 2	DPYSL2	62294	1.9E-04	0.045
P31946	14-3-3 protein beta/alpha	YWHAB	28082	5.8E-03	0.031
Down-regulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P values	Log2 (Fold change)
P25398	40S ribosomal protein S12	RPS12	14515	2.7E-04	-1.648
P30050	60S ribosomal protein L12	RPL12	17819	4.4E-03	-1.290
Q13838	Spliceosome RNA helicase DDX39B	DDX39B	48991	1.6E-02	-1.218
P27635	60S ribosomal protein L10	RPL10	24604	3.6E-03	-1.047
P08865	40S ribosomal protein SA	RPSA	32854	2.3E-02	-1.023
Q86VP6	Cullin-associated NEDD8-dissociated protein 1	CAND1	136375	8.3E-05	-0.980
P46776	60S ribosomal protein L27a	RPL27A	16561	2.9E-05	-0.889
P49321	Nuclear autoantigenic sperm protein	NASP	85238	2.9E-02	-0.860
P05388	60S acidic ribosomal protein P0	RPLP0	34274	3.2E-02	-0.837
P46782	40S ribosomal protein S5	RPS5	22876	3.6E-02	-0.816
P27695	DNA-(apurinic or apyrimidinic site) lyase	APEX1	35555	4.4E-02	-0.769
P62913	60S ribosomal protein L11	RPL11	20252	1.1E-02	-0.735
Q9UJZ1	Stomatin-like protein 2 mitochondrial	STOML2	38534	7.1E-04	-0.701
P05387	60S acidic ribosomal protein P2	RPLP2	11665	9.0E-04	-0.690
P60842	Eukaryotic initiation factor 4A-I	EIF4A1	46154	2.1E-02	-0.662
P61088	Ubiquitin-conjugating enzyme E2 N	UBE2N	17138	2.8E-05	-0.628
Q16658	Fascin	FSCN1	54530	2.4E-02	-0.606
P30153	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform	PPP2R1A	65309	4.8E-02	-0.591
P62081	40S ribosomal protein S7	RPS7	22127	1.1E-02	-0.580
P37108	Signal recognition particle 14 kDa protein	SRP14	14570	1.3E-03	-0.578
P62701	40S ribosomal protein S4 X isoform	RPS4X	29598	1.8E-04	-0.552

Table 1. Cont.

Down-regulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P values	Log2 (Fold change)
P62906	60S ribosomal protein L10a	RPL10A	24831	3.0E-03	-0.494
P49327	Fatty acid synthase	FASN	273424	7.8E-03	-0.494
Q15366	Poly(rC)-binding protein 2	PCBP2	38580	2.8E-03	-0.490
P38159	RNA-binding motif protein X chromosome	RBMX	42332	1.2E-02	-0.484
P83731	60S ribosomal protein L24	RPL24	17779	1.2E-02	-0.423
P35637	RNA-binding protein FUS	FUS	53426	3.8E-02	-0.398
P61981	14-3-3 protein gamma	YWHAG	28303	4.2E-02	-0.394
P24752	Acetyl-CoA acetyltransferase mitochondrial	ACAT1	45200	1.9E-02	-0.392
P13639	Elongation factor 2	EEF2	95338	4.8E-02	-0.370
P52565	Rho GDP-dissociation inhibitor 1	ARHGDI1	23207	3.4E-03	-0.360
P15121	Aldose reductase	AKR1B1	35853	1.4E-05	-0.340
P14174	Macrophage migration inhibitory factor	MIF	12476	2.3E-03	-0.340
Q99525	Histone H4-like protein type G	HIST1H4G	11009	7.1E-03	-0.329
P19338	Nucleolin	NCL	76615	1.3E-03	-0.317
P05386	60S acidic ribosomal protein P1	RPLP1	11514	2.3E-03	-0.315
Q14103	Heterogeneous nuclear ribonucleoprotein D0	HNRNPD	38434	3.3E-03	-0.306
P36578	60S ribosomal protein L4	RPL4	47697	8.9E-03	-0.288
P62851	40S ribosomal protein S25	RPS25	13742	1.2E-04	-0.286
P23396	40S ribosomal protein S3	RPS3	26688	7.3E-03	-0.279
P24534	Elongation factor 1-beta	EEF1B2	24764	9.9E-05	-0.274
P07195	L-lactate dehydrogenase B chain	LDHB	36639	7.4E-03	-0.269
P14618	Pyruvate kinase PKM	PKM	57937	5.3E-03	-0.267
P00558	Phosphoglycerate kinase 1	PGK1	44615	1.2E-02	-0.257
P09211	Glutathione S-transferase P	GSTP1	23356	9.3E-04	-0.255
Q01105	Protein SET	SET	33489	3.3E-02	-0.243
P46781	40S ribosomal protein S9	RPS9	22591	3.1E-02	-0.240
P0C0S5	Histone H2A.Z	H2AFZ	13553	5.8E-03	-0.234
P18124	60S ribosomal protein L7	RPL7	29226	2.1E-02	-0.226
P50395	Rab GDP dissociation inhibitor beta	GDI2	50663	3.4E-03	-0.226
Q02878	60S ribosomal protein L6	RPL6	32728	2.8E-02	-0.224
P06748	Nucleophosmin	NPM1	32575	2.1E-02	-0.196
P40227	T-complex protein 1 subunit zeta	CCT6A	58024	1.2E-02	-0.193
P30041	Peroxiredoxin-6	PRDX6	25035	4.3E-02	-0.180
P62258	14-3-3 protein epsilon	YWHAE	29174	4.5E-02	-0.163
Q71UI9	Histone H2A.V	H2AFV	13509	4.5E-02	-0.152
P11142	Heat shock cognate 71 kDa protein	HSPA8	70898	8.7E-04	-0.146
P40926	Malate dehydrogenase mitochondrial	MDH2	35503	1.8E-02	-0.138
P52272	Heterogeneous nuclear ribonucleoprotein M	HNRNPM	77516	4.1E-02	-0.105
P62805	Histone H4	HIST1H4A	11367	6.8E-03	-0.092
P10809	60 kDa heat shock protein mitochondrial	HSPD1	61055	4.3E-02	-0.063
P06733	Alpha-enolase	ENO1	47169	1.2E-02	-0.045
P62277	40S ribosomal protein S13	RPS13	17222	1.4E-02	-0.041

Table 2: Up and down-regulated proteins in 6-OHDA induced neurodegeneration on differ-SH-SY5Y cells with average 6-OHDA/untreated protein ratios between replicates.

Upregulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P value	Log2 (Fold change)
P21796	Voltage-dependent anion-selective channel protein 1	VDAC1	61546	9.20E-03	1.135
P38646	Stress-70 protein mitochondrial	HSPA9	147362	2.00E-02	1.044
P61604	10 kDa heat shock protein mitochondrial	HSPE1	21864	1.33E-02	1.044
P30049	ATP synthase subunit delta mitochondrial	ATP5F1D	34980	1.80E-02	0.945
P08758	Annexin A5	ANXA5	71874	4.29E-02	0.911
P49411	Elongation factor Tu mitochondrial	TUFM	99084	3.32E-02	0.762
P40939	Trifunctional enzyme subunit alpha mitochondrial	HADHA	166000	1.03E-02	0.761
Q9Y277	Voltage-dependent anion-selective channel protein 3	VDAC3	61318	2.31E-03	0.712
P35232	Prohibitin	PHB	59608	3.61E-02	0.622
Q99623	Prohibitin-2	PHB2	66592	3.10E-03	0.565
Q9UJZ1	Stomatin-like protein 2 mitochondrial	STOML2	77068	5.50E-07	0.511
P24752	Acetyl-CoA acetyltransferase mitochondrial	ACAT1	90400	3.38E-03	0.462
O15240	Neurosecretory protein VGF	VGf	134516	4.43E-04	0.439
P05141	ADP/ATP translocase 2	SLC25A5	65704	2.74E-04	0.425
O00571	ATP-dependent RNA helicase DDX3X	DDX3X	146488	9.43E-03	0.343
P04792	Heat shock protein beta-1	HSPB1	45566	6.85E-03	0.324
P06576	ATP synthase subunit beta mitochondrial	ATP5F1B	113120	5.29E-03	0.310
P25705	ATP synthase subunit alpha mitochondrial	ATP5F1A	119502	7.78E-03	0.302
P49327	Fatty acid synthase	FASN	546848	4.45E-02	0.296
P07355	Annexin A2	ANXA2	77208	5.93E-03	0.273
P11021	Endoplasmic reticulum chaperone BiP	HSPA5	144666	2.02E-02	0.261
P30101	Protein disulfide-isomerase A3	PDIA3	113564	1.13E-04	0.246
P45880	Voltage-dependent anion-selective channel protein 2	VDAC2	63134	3.08E-02	0.233
Q08211	ATP-dependent RNA helicase A	DHX9	281916	4.21E-02	0.230
P27824	Calnexin	CANX	135136	2.00E-02	0.209
Q9BVA1	Tubulin beta-2B chain	TUBB2B	99906	3.02E-05	0.180
Q15084	Protein disulfide-isomerase A6	PDIA6	96242	3.45E-02	0.171
P16104	Histone H2AX OS=Homo sapiens	H2AFX	30290	2.43E-04	0.171
P14625	Endoplasmic reticulum chaperone BiP	HSP90B1	184938	1.53E-04	0.166
Q13509	Tubulin beta-3 chain	TUBB3	100866	3.50E-02	0.158
P23246	Splicing factor proline- and glutamine-rich	SFPQ	152300	2.12E-02	0.158
P62805	Histone H4	HIST1H4A	22734	4.75E-02	0.148
Q9P0M6	Core histone macro-H2A.2	H2AFY2	80116	7.24E-03	0.143
Q9BUF5	Tubulin beta-6 chain	TUBB6	99714	1.45E-02	0.141
P07602	Prosaposin	PSAP	116226	6.53E-04	0.138
Q99714	3-hydroxyacyl-CoA dehydrogenase type-2	HSD17B10	53846	1.81E-02	0.128
P23284	Peptidyl-prolyl cis-trans isomerase B	PPIB	47486	4.24E-02	0.128
O75367	Core histone macro-H2A.1	H2AFY	79234	2.54E-02	0.127
P10809	60 kDa heat shock protein mitochondrial	HSPD1	122110	1.10E-02	0.112
P68104	Elongation factor 1-alpha 1	EEF1A1	100282	4.78E-02	0.111
P06899	Histone H2B type 1-J	HIST1H2BJ	27808	1.13E-02	0.108
P23527	Histone H2B type 1-O	HIST1H2BO	27812	1.13E-02	0.108
P33778	Histone H2B type 1-B	HIST1H2BB	27900	1.13E-02	0.108

Table 2. Cont.

Upregulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P value	Log2 (Fold Change)
Q16778	Histone H2B type 2-E	HIST2H2BE	27840	1.13E-02	0.108
P62829	60S ribosomal protein L23	RPL23	29730	1.98E-02	0.106
P27797	Calreticulin	CALR	96284	4.01E-03	0.099
O60814	Histone H2B type 1-K	HIST1H2BK	27780	1.19E-02	0.094
P57053	Histone H2B type F-S	H2BFS	27888	1.19E-02	0.094
P58876	Histone H2B type 1-D	HIST1H2BD	27872	1.19E-02	0.094
P62807	Histone H2B type 1-C/E/F/G/I	HIST1H2BC	27812	1.19E-02	0.094
Q5QNW6	Histone H2B type 2-F	HIST2H2BF	27840	1.19E-02	0.094
Q93079	Histone H2B type 1-H	HIST1H2BH	27784	1.19E-02	0.094
Q99877	Histone H2B type 1-N	HIST1H2BN	27844	1.19E-02	0.094
Q99879	Histone H2B type 1-M	HIST1H2BM	27978	1.19E-02	0.094
P60709	Actin cytoplasmic 1	ACTB	83474	4.58E-04	0.092
P63261	Actin cytoplasmic 2	ACTG1	83586	1.59E-03	0.092
Q71U36	Tubulin alpha-1A chain	TUBA1A	100272	6.86E-03	0.091
P68032	Actin alpha cardiac muscle 1	ACTC1	84038	2.39E-03	0.087
P68363	Tubulin alpha-1B chain	TUBA1B	100304	2.94E-04	0.085
P07437	Tubulin beta chain	TUBB	99342	2.66E-02	0.081
Q05639	Elongation factor 1-alpha 2	EEF1A2	100940	2.25E-03	0.069
Q00610	Clathrin heavy chain 1	CLTC	383226	2.15E-03	0.052
P62249	40S ribosomal protein S16	RPS16	32890	5.39E-03	0.013
Down-regulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P value	Log2 (Fold Change)
P32119	Peroxiredoxin-2	PRDX2	43784	2.19E-02	-0.935
P55072	Transitional endoplasmic reticulum ATPase	VCP	178644	1.29E-02	-0.803
P30041	Peroxiredoxin-6	PRDX6	50070	3.09E-02	-0.683
P19338	Nucleolin	NCL	153230	1.56E-02	-0.648
P36578	60S ribosomal protein L4	RPL4	95394	3.50E-03	-0.637
P31150	Rab GDP dissociation inhibitor alpha	GDI1	101166	1.97E-02	-0.527
P60028	Rab GDP dissociation inhibitor alpha	GDI1	101166	1.97E-02	-0.527
P62753	40S ribosomal protein S6	RPS6	57362	2.45E-02	-0.490
P14174	Macrophage migration inhibitory factor	MIF	24952	3.02E-02	-0.482
P62826	GTP-binding nuclear protein Ran	RAN	48846	1.48E-02	-0.454
P60174	Triosephosphate isomerase	TPI1	61582	2.52E-02	-0.450
P00338	L-lactate dehydrogenase A chain	LDHA	73378	1.66E-02	-0.446
P0DP23	Calmodulin-1	CALM1	33676	9.96E-08	-0.442
P0DP24	Calmodulin-2	CALM2	33676	9.96E-08	-0.442
P0DP25	Calmodulin-3	CALM3	33676	9.96E-08	-0.442
Q16555	Dihydropyrimidinase-related protein 2	DPYSL2	124588	2.66E-02	-0.427

Table 2. *Cont*

Down-regulated proteins					
Uniprot Accession	Description of protein	Symbol	Average mass	P value	Log2 (Fold Change)
P62841	40S ribosomal protein S15	RPS15	34080	2.58E-03	-0.413
Q06830	Peroxiredoxin-1	PRDX1	44220	3.01E-04	-0.411
P07195	L-lactate dehydrogenase B chain	LDHB	73278	2.98E-02	-0.383
P62304	Small nuclear ribonucleoprotein E	SNRPE	21608	2.24E-02	-0.383
Q13263	Transcription intermediary factor 1-beta	TRIM28	177100	1.22E-03	-0.351
Q12905	Interleukin enhancer-binding factor 2	ILF2	86124	8.24E-03	-0.342
P06733	Alpha-enolase	ENO1	94338	7.24E-04	-0.336
P46782	40S ribosomal protein S5	RPS5	45752	4.07E-03	-0.331
P29373	Cellular retinoic acid-binding protein 2	CRABP2	31386	3.38E-02	-0.327
P12277	Creatine kinase B-type	CKB	85288	1.49E-02	-0.306
P30153	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform	PPP2R1A	130618	3.98E-02	-0.295
P52565	Rho GDP-dissociation inhibitor 1	ARHGDI1	46414	4.18E-03	-0.293
P06744	Glucose-6-phosphate isomerase	GPI	126294	2.18E-02	-0.290
P63104	14-3-3 protein zeta/delta	YWHAZ	55490	4.51E-02	-0.189
Q14103	Heterogeneous nuclear ribonucleoprotein D0	HNRNPD	76868	6.85E-03	-0.188
P62851	40S ribosomal protein S25	RPS	27484	6.19E-04	-0.180
P68431	Histone H3.1	HIST1H3A	30808	2.69E-02	-0.180
P37802	Transgelin-2	TAGLN	44782	2.79E-03	-0.170
P62081	40S ribosomal protein S7	RPS	44254	4.50E-02	-0.133
P61978	Heterogeneous nuclear ribonucleoprotein K	HNRNPK	101952	4.36E-02	-0.111
P62318	Small nuclear ribonucleoprotein Sm D3	SNRPD	27832	2.65E-03	-0.074
P13639	Elongation factor 2	EEF	190676	7.45E-04	-0.068