



Table 1. Identified proteins with expression significantly altered in the hippocampus of rats of exposed group (Pb) *vs.* Control.

Accession Id ^a	Protein Description	Score	Fold Change Pb
P35213	14-3-3 protein beta/alpha	85420	−0.835
P62260	14-3-3 protein epsilon	96570	−0.878
P68511	14-3-3 protein eta	85420	−0.844
P68255	14-3-3 protein theta	85420	−0.835
P63102	14-3-3 protein zeta/delta	105051	−0.803
P13233	2',3'-cyclic-nucleotide 3'-phosphodiesterase	151400	1.405
P68035	Actin, alpha cardiac muscle 1	442584	−0.942
P68136	Actin, alpha skeletal muscle	441060	−0.970
P62738	Actin, aortic smooth muscle	438270	−0.970
P60711	Actin, cytoplasmic 1	630104	−0.942
P63259	Actin, cytoplasmic 2	630104	−0.942
P63269	Actin, gamma-enteric smooth muscle	438270	−0.951
Q05962	ADP/ATP translocase 1	60100	−0.554
Q09073	ADP/ATP translocase 2	49102	−0.482
P84079	ADP-ribosylation factor 1	34675	−0.644
P84082	ADP-ribosylation factor 2	22412	−0.644
P61206	ADP-ribosylation factor 3	34675	−0.619
P61751	ADP-ribosylation factor 4	22412	−0.670
P84083	ADP-ribosylation factor 5	22412	−0.625
P04764	Alpha-enolase	46219	−0.951
P23565	Alpha-internexin	9478	1.062
P37377	Alpha-synuclein	89619	−0.771
P13221	Aspartate aminotransferase, cytoplasmic	23661	1.083
P00507	Aspartate aminotransferase, mitochondrial	46049	1.116
P10719	ATP synthase subunit beta, mitochondrial	232442	−0.835
P85969	Beta-soluble NSF attachment protein	9638	1.419
Q63754	Beta-synuclein	66842	−0.779
P11275	Calcium/calmodulin-dependent protein kinase type II subunit alpha	181954	1.105
P08413	Calcium/calmodulin-dependent protein kinase type II subunit beta	80840	1.127
P15791	Calcium/calmodulin-dependent protein kinase type II subunit delta	62682	1.105

P11730	Calcium/calmodulin-dependent protein kinase type II subunit gamma	66045	1.127
P0DP29	Calmodulin-1	96662	-0.923
P0DP30	Calmodulin-2	96662	-0.932
P0DP31	Calmodulin-3	96662	-0.905
Q5U206	Calmodulin-like protein 3	22038	-0.869
P11442	Clathrin heavy chain 1	19100	1.162
P45592	Cofilin-1	95634	-0.942
Q63198	Contactin-1	5081	1.310
P07335	Creatine kinase B-type	133047	-0.844
P25809	Creatine kinase U-type, mitochondrial	9299	1.127
P32551	Cytochrome b-c1 complex subunit 2, mitochondrial	4014	1.323
P00406	Cytochrome c oxidase subunit 2	42862	-0.538
P10888	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial	14314	-0.625
P10818	Cytochrome c oxidase subunit 6A1, mitochondrial	30209	1.284
Q6P6R2	Dihydrolipoyl dehydrogenase, mitochondrial	6786	-0.583
P21575	Dynamin-1	16920	-0.951
P39052	Dynamin-2	7306	1.127
Q08877	Dynamin-3	5050	1.297
P06761	Endoplasmic reticulum chaperone BiP	17487	-0.878
P31596	Excitatory amino acid transporter 2	135403	-0.432
P09117	Fructose-bisphosphate aldolase C	78961	-0.869
P47819	Glial fibrillary acidic protein	14060	1.062
Q6P6V0	Glucose-6-phosphate isomerase	5393	1.162
P10860	Glutamate dehydrogenase 1, mitochondrial	19715	1.162
P04797	Glyceraldehyde-3-phosphate dehydrogenase	388167	-0.887
Q9ESV6	Glyceraldehyde-3-phosphate dehydrogenase, testis-specific	43473	-0.387
Q63942	GTP-binding protein Rab-3D	23651	-0.712
P08753	Guanine nucleotide-binding protein G(i) subunit alpha	77246	-0.852
P10824	Guanine nucleotide-binding protein G(i) subunit alpha-1	79753	-0.811
P04897	Guanine nucleotide-binding protein G(i) subunit alpha-2	77246	-0.852
P54311	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1	16927	1.051
P54313	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	18410	1.150
P59215	Guanine nucleotide-binding protein G(o) subunit alpha	151399	1.433
P38406	Guanine nucleotide-binding protein G(olf) subunit alpha	77246	-0.844
P63095	Guanine nucleotide-binding protein G(s) subunit alpha isoforms short	77246	-0.844
Q63803	Guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas	77246	-0.852

P29348	Guanine nucleotide-binding protein G(t) subunit alpha-3	77246	-0.852
Q63210	Guanine nucleotide-binding protein subunit alpha-12	77156	-0.844
Q6Q7Y5	Guanine nucleotide-binding protein subunit alpha-13	77156	-0.861
P0DMW0	Heat shock 70 kDa protein 1A	4870	-0.896
P0DMW1	Heat shock 70 kDa protein 1B	4870	-0.932
Q5XHZ0	Heat shock protein 75 kDa, mitochondrial	15232	1.246
P82995	Heat shock protein HSP 90-alpha	13791	1.174
P34058	Heat shock protein HSP 90-beta	16345	1.197
P01946	Hemoglobin subunit alpha-1/2	602284	-0.763
P02091	Hemoglobin subunit beta-1	219977	-0.657
P11517	Hemoglobin subunit beta-2	190718	-0.619
P05708	Hexokinase-1	3920	1.221
Q00715	Histone H2B type 1	72080	1.271
P62804	Histone H4	86771	1.150
P04642	L-lactate dehydrogenase A chain	53083	-0.961
P30904	Macrophage migration inhibitory factor	38694	1.094
O88989	Malate dehydrogenase, cytoplasmic	58867	-0.923
P04636	Malate dehydrogenase, mitochondrial	106122	-0.869
Q63560	Microtubule-associated protein 6	2813	1.377
P02688	Myelin basic protein	534696	1.041
P60203	Myelin proteolipid protein	332656	2.586
Q63345	Myelin-oligodendrocyte glycoprotein	63588	-0.748
P13596	Neural cell adhesion molecule 1	2018	-0.795
O35095	Neurochondrin	16987	-0.779
P19527	Neurofilament light polypeptide	9132	-0.923
Q05982	Nucleoside diphosphate kinase A	61455	1.062
P10111	Peptidyl-prolyl cis-trans isomerase A	72155	1.083
O35244	Peroxiredoxin-6	20269	1.246
P31044	Phosphatidylethanolamine-binding protein 1	53659	-0.887
P16617	Phosphoglycerate kinase 1	30992	1.073
P25113	Phosphoglycerate mutase 1	49565	1.030
P09626	Potassium-transporting ATPase alpha chain 1	22935	-0.619
P54708	Potassium-transporting ATPase alpha chain 2	76040	-0.264
P62963	Profilin-1	57416	1.185
P63319	Protein kinase C gamma type	5667	1.822
P04631	Protein S100-B	205290	-0.835

P49432	Pyruvate dehydrogenase E1 component subunit beta, mitochondrial	20003	1.139
P11980	Pyruvate kinase PKM	130661	-0.861
P50399	Rab GDP dissociation inhibitor beta	46816	-0.914
P35281	Ras-related protein Rab-10	12255	-0.684
P35284	Ras-related protein Rab-12	10865	-0.670
P35286	Ras-related protein Rab-13	3247	-0.651
P61107	Ras-related protein Rab-14	10865	-0.664
P35289	Ras-related protein Rab-15	10847	-0.677
Q6NYB7	Ras-related protein Rab-1A	12255	-0.684
P10536	Ras-related protein Rab-1B	12255	-0.691
P51156	Ras-related protein Rab-26	10865	-0.670
Q5U316	Ras-related protein Rab-35	12517	-0.684
P63012	Ras-related protein Rab-3A	33157	-0.705
Q63941	Ras-related protein Rab-3B	21898	-0.705
P62824	Ras-related protein Rab-3C	21898	-0.712
Q53B90	Ras-related protein Rab-43	10865	-0.670
P05714	Ras-related protein Rab-4A	10865	-0.670
P51146	Ras-related protein Rab-4B	10865	-0.664
Q9WVB1	Ras-related protein Rab-6A	9041	-0.670
P35280	Ras-related protein Rab-8A	12255	-0.677
P70550	Ras-related protein Rab-8B	12255	-0.684
Q5XI73	Rho GDP-dissociation inhibitor 1	83284	1.139
P63329	Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform	21080	1.105
P02770	Serum albumin	3164	-0.869
P06685	Sodium/potassium-transporting ATPase subunit alpha-1	121181	-0.527
P06686	Sodium/potassium-transporting ATPase subunit alpha-2	153567	-0.517
P06687	Sodium/potassium-transporting ATPase subunit alpha-3	203866	-0.273
Q64541	Sodium/potassium-transporting ATPase subunit alpha-4	77334	-0.492
P07340	Sodium/potassium-transporting ATPase subunit beta-1	152988	-0.379
P09951	Synapsin-1	18756	-0.914
Q63537	Synapsin-2	41092	-0.819
P07825	Synaptophysin	42961	1.310
P60881	Synaptosomal-associated protein 25	16493	-0.779
P21707	Synaptotagmin-1	20604	-0.748
P29101	Synaptotagmin-2	2245	-0.763
P47861	Synaptotagmin-5	2245	-0.795

P61765	Syntaxin-binding protein 1	59845	1.073
P01830	Thy-1 membrane glycoprotein	12202	1.221
P48500	Triosephosphate isomerase	113496	-0.827
P68370	Tubulin alpha-1A chain	629522	-0.852
Q6P9V9	Tubulin alpha-1B chain	575866	-0.852
Q6AYZ1	Tubulin alpha-1C chain	469951	-0.844
Q68FR8	Tubulin alpha-3 chain	533024	-0.861
Q5XIF6	Tubulin alpha-4A chain	319537	-0.844
Q6AY56	Tubulin alpha-8 chain	264255	-0.861
P85108	Tubulin beta-2A chain	1124869	-0.852
Q3KRE8	Tubulin beta-2B chain	1123519	-0.861
Q4QRB4	Tubulin beta-3 chain	723020	-0.852
Q6P9T8	Tubulin beta-4B chain	1042088	-0.980
P69897	Tubulin beta-5 chain	1033610	1.030
Q00981	Ubiquitin carboxyl-terminal hydrolase isozyme L1	20178	1.105
P63045	Vesicle-associated membrane protein 2	26914	-0.811
Q9QUL6	Vesicle-fusing ATPase	14577	1.062
Q9R1Z0	Voltage-dependent anion-selective channel protein 3	26793	1.174
P62815	V-type proton ATPase subunit B, brain isoform	12704	1.209
Q6PCU2	V-type proton ATPase subunit E 1	12118	-0.896
Q5RKI0	WD repeat-containing protein 1	15422	1.246
P26772	10 kDa heat shock protein, mitochondrial	55215	+
Q62878	3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 4	5267	-
P07953	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1	4794	-
P11030	Acyl-CoA-binding protein	100395	-
P07943	Aldo-keto reductase family 1 member B1	7599	-
Q64563	All-trans-retinol dehydrogenase [NAD(+)] ADH4	24811	-
Q63028	Alpha-adducin	6503	+
P54921	Alpha-soluble NSF attachment protein	17613	+
Q02356	AMP deaminase 2	4914	+
O08838	Amphiphysin	4776	-
P18484	AP-2 complex subunit alpha-2	6539	+
P62944	AP-2 complex subunit beta	4673	+
P84092	AP-2 complex subunit mu	4908	-
P02650	Apolipoprotein E	4894	-
P21571	ATP synthase-coupling factor 6, mitochondrial	31889	+

Q7TNJ2	ATP-binding cassette sub-family A member 7	3891	+
Q3BCU4	Blood vessel epicardial substance	5339	–
P55068	Brevican core protein	10527	+
D3Z8E6	Calmodulin-regulated spectrin-associated protein 1	3976	–
P27139	Carbonic anhydrase 2	12017	–
Q9EQV9	Carboxypeptidase B2	4326	–
Q5M7A7	CB1 cannabinoid receptor-interacting protein 1	33730	+
P86182	Coiled-coil domain-containing protein 22	5304	+
P20788	Cytochrome b-c1 complex subunit Rieske, mitochondrial	28187	+
P12075	Cytochrome c oxidase subunit 5B, mitochondrial	23587	–
Q9JHU0	Dihydropyrimidinase-related protein 5	11356	–
O55096	Dipeptidyl peptidase 3	4656	+
O88797	Disabled homolog 2	4094	+
Q8VHZ8	Down syndrome cell adhesion molecule homolog	2111	–
P28023	Dynactin subunit 1	3064	–
O35964	Endophilin-A2	27839	+
P24942	Excitatory amino acid transporter 1	27055	–
Q3T1K5	F-actin-capping protein subunit alpha-2	8085	+
P04937	Fibronectin	2559	+
P04906	Glutathione S-transferase P	9312	+
D3ZZL9	GRIP and coiled-coil domain-containing protein 2	3734	+
P0C0K5	Hepatitis A virus cellular receptor 2 homolog	5942	+
Q5RKG2	Host cell factor 2	3844	–
Q99NA5	Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial	3615	–
Q68FX0	Isocitrate dehydrogenase [NAD] subunit beta, mitochondrial	5466	–
Q5XIA9	Kelch domain-containing protein 8B	5129	+
Q6IG00	Keratin, type II cytoskeletal 4	3867	+
Q6P6Q2	Keratin, type II cytoskeletal 5	3867	+
Q4FZU2	Keratin, type II cytoskeletal 6A	3867	+
Q6IG12	Keratin, type II cytoskeletal 7	3867	+
Q6IG05	Keratin, type II cytoskeletal 75	3867	+
Q10758	Keratin, type II cytoskeletal 8	3867	+
Q9QYU4	Ketimine reductase mu-crystallin	12012	+
Q91V33	KH domain-containing, RNA-binding, signal transduction-associated protein 1	3741	–
Q2PQA9	Kinesin-1 heavy chain	5374	+
Q4KLL9	Kinesin-like protein KIF18B	7570	+

Q6P7A9	Lysosomal alpha-glucosidase	12166	+
A1A5P9	Melanoma-associated antigen E1	3335	+
P63086	Mitogen-activated protein kinase 1	5624	+
Q03626	Murinoglobulin-1	4112	–
Q6IE52	Murinoglobulin-2	2849	–
Q5BK63	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9, mitochondrial	11676	–
A1L1I3	Numb-like protein	3366	+
O88488	Phosphatidylinositol phosphatase PTPRQ	4821	–
P11505	Plasma membrane calcium-transporting ATPase 1	9453	–
P11506	Plasma membrane calcium-transporting ATPase 2	4977	–
Q64568	Plasma membrane calcium-transporting ATPase 3	3948	–
Q64542	Plasma membrane calcium-transporting ATPase 4	2544	–
O35264	Platelet-activating factor acetylhydrolase IB subunit beta	10420	–
P30427	Plectin	2065	+
A1A5S1	Pre-mRNA-processing factor 6	3793	–
Q4KLM6	Prolyl 3-hydroxylase 2	7553	+
P05696	Protein kinase C alpha type	2389	+
Q9Z0W5	Protein kinase C and casein kinase substrate in neurons protein 1	11298	+
P68403	Protein kinase C beta type	2389	+
Q62919	Protein kinase C-binding protein NELL1	3143	–
Q8R508	Protocadherin Fat 3	2195	–
Q63713	Ras GTPase-activating protein 2	2387	+
Q64604	Receptor-type tyrosine-protein phosphatase F	2171	–
Q5XXR3	Rho guanine nucleotide exchange factor 6	4257	+
Q5PQK1	Septin-10	1680	–
B3GNI6	Septin-11	9876	–
Q9JJM9	Septin-5	11653	+
B0BNF1	Septin-8	1993	–
Q9R011	Serine/threonine-protein kinase PLK3	12021	+
P36876	Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform	5542	–
O35412	Signal-induced proliferation-associated 1-like protein 1	6277	–
Q07116	Sulfite oxidase, mitochondrial	7611	+
Q5CD77	TBC1 domain family member 14	17646	+
Q6P502	T-complex protein 1 subunit gamma	34657	+
P37805	Transgelin-3	16870	+
F1LNJ2	U5 small nuclear ribonucleoprotein 200 kDa helicase	4944	+

D3ZJ96	Ubiquitin carboxyl-terminal hydrolase 28	3014	+
B2RYG6	Ubiquitin thioesterase OTUB1	8765	–
Q5U300	Ubiquitin-like modifier-activating enzyme 1	7179	+
D3ZYQ8	Uridine-cytidine kinase	2997	–
P31000	Vimentin	3867	+
P25286	V-type proton ATPase 116 kDa subunit a isoform 1	2497	–

^aAccession ID according to Uniport.org database. Positive and negative values of fold change indicate up- and down-regulated proteins, respectively. Signs of + or – indicates exclusive expression in Pb group and in control group, respectively. Results of the comparison between Pb group and control group.



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