

Neuron projection regeneration	Neuron projection development	Neurogenesis	Neural nucleus development	Protein
		ACSL3		Long-chain-fatty-acid--CoA ligase 3
	ACSL4	ACSL4		Long-chain-fatty-acid--CoA ligase 4
	AGRN	AGRN		Agrin
		AGT		Angiotensinogen
			ALDH1A3	Aldehyde dehydrogenase family 1 member A3
		ANXA1		Annexin A1
APOA1	APOA1	APOA1		Apolipoprotein A-I
APOD	APOD	APOD		Apolipoprotein D
	APOE	APOE		Apolipoprotein E
	ARF4	ARF4		ADP-ribosylation factor 4
		ARHGDI A		Rho GDP-dissociation inhibitor 1
		CALR		Calreticulin
		CD9		CD9 antigen
	CDC42	CDC42	CDC42	Cell division control protein 42 homolog
	CDH1	CDH1		Cadherin-1
		CFL1		Cofilin-1
		CIB1		Calcium and integrin binding 1
		CLU		Clusterin
	CNP	CNP	CNP	2',3'-cyclic-nucleotide 3'-phosphodiesterase
		CRABP2		Cellular retinoic acid-binding protein 2
		CTS Z		Cathepsin Z
DAG1	DAG1	DAG1		Dystroglycan 1
	DDR1	DDR1		Epithelial discoidin domain-containing receptor 1
	DPYSL2	DPYSL2		Dihydropyrimidinase-related protein 2
		DPYSL3		Dihydropyrimidinase-related protein 3
		EEF2		Elongation factor 2
	ENAH	ENAH		Protein enabled homolog
	EPHA7	EPHA7		Ephrin type-A receptor 7
	EZR	EZR		Villin 2 (ezrin); Ezrin
		F2		Prothrombin
	FAM129B	FAM129B		Family with sequence similarity 129-member b
		FKBP4		Peptidyl-prolyl cis-trans isomerase FKBP4
		FN1		Fibronectin 1
FOLR1	FOLR1	FOLR1		Folate receptor alpha
			G6PD	Glucose-6-phosphate 1-dehydrogenase
			GNB4	Guanine nucleotide-binding protein subunit beta-4
		GPR126		Adhesion G-protein coupled receptor G6
		GPR56		Adhesion G-protein coupled receptor G1
		GPRC5B		G-protein coupled receptor family C group 5 member B
		GSN		Gelsolin

		HEXB	Beta-hexosaminidase subunit beta
	HSP90AA1	HSP90AA1	Heat shock protein HSP 90-alpha
	HSP90AB1	HSP90AB1	Heat shock protein 90 alpha family class b member 1
		HSPA5	HSPA5
		IL6ST	Interleukin-6 receptor subunit beta
	IQGAP1	IQGAP1	Iq motif containing gtpase activating protein 1
		IST1	IST1 homolog
		KLK6	Kallikrein-6
	LAMB1	LAMB1	Laminin subunit beta-1
LAMB2	LAMB2	LAMB2	Laminin subunit beta-2
		LDHA	L-lactate dehydrogenase a chain
	LRP2	LRP2	Low-density lipoprotein receptor-related protein 2
		MAN2A1	Alpha-mannosidase 2
MATN2	MATN2	MATN2	Matrilin-2;
		MDGA2	MAM domain-containing glycosylphosphatidylinositol anchor protein 2
		MYCBP2	E3 ubiquitin-protein ligase MYCBP2
	MYCBP2	NAGLU	Alpha-N-acetylglucosaminidase
		NAPIL1	Nucleosome assembly protein 1-like 1
		NCSTN	Nicastrin
		NDRG2	Ndr family member 2
	NEO1	NEO1	Neogenin
		NME2	Nucleoside diphosphate kinase
	NRP1	NRP1	Neuropilin-1
		PADI2	Protein-arginine deiminase type-2
	PHGDH	PHGDH	D-3-phosphoglycerate dehydrogenase
	POSTN	POSTN	Periostin
	PREX2	PREX2	Phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
		PROM1	Prominin-1
		PSAP	Prosaposin
PTPRF	PTPRF	PTPRF	Receptor-type tyrosine-protein phosphatase F
	RAB10	RAB10	Ras-related protein Rab-10
	RAB11A	RAB11A	Ras-related protein Rab-11A
	RAB8A	RAB8A	RAB8A, member RAS oncogene family
	RAC1	RAC1	Ras-related C3 botulinum toxin substrate 1
	RHOA	RHOA	RHOA
	RTN4	RTN4	Ras homolog gene family, member a
		S100A8	Reticulon-4
	SEMA4B	SEMA4B	Protein S100-A8
		SERPINF1	Semaphorin-4B
		SERPINI1	Pigment epithelium-derived factor;
		SERPINI1	Neuroserpin
	SLC9A3R1	SLC9A3R1	Na(+)/H(+) exchange regulatory

			cofactor NHE-RF1
		SPINT1	Serine peptidase inhibitor, kunitz type 1
		SPP1	Secreted phosphoprotein 1
	STK3	STK3	Serine/threonine-protein kinase 3
	STXBP1	STXBP1	Syntaxin-binding protein 1
		TLR2	Toll-like receptor 2
TNC	TNC	TNC	Tenascin
	VCL	VCL	Vinculin
		VTN	Vitronectin
		WDR1	WD repeat-containing protein 1
		YWHAE	14-3-3 protein epsilon
		YWHAG	14-3-3 protein gamma
		YWHAH	14-3-3 protein eta
		YWHAZ	14-3-3 protein theta
		YWHAQ	14-3-3 protein zeta/delta

**Table 1.** 92 filtered proteins by Biological Process with the online tool STRING.

<b>Prion disease</b>	<b>AD</b>	<b>PD</b>	<b>HD</b>	<b>Glycosphingolipid biosynthesis - ganglio series</b>	<b>Protein</b>
PSMA2	PSMA2	PSMA2	PSMA2		Proteasome subunit alpha type-2
PSMA3	PSMA3	PSMA3	PSMA3		Proteasome subunit alpha type-3
PSMA4	PSMA4	PSMA4	PSMA4		Proteasome subunit alpha type-4
PSMA5	PSMA5	PSMA5	PSMA5		Proteasome subunit alpha type-5
PSMA6	PSMA6	PSMA6	PSMA6		Proteasome subunit alpha type-6
PSMA7	PSMA7	PSMA7	PSMA7		Proteasome subunit alpha type-7
PSMB1	PSMB1	PSMB1	PSMB1		Proteasome subunit beta type-1
PSMB2	PSMB2	PSMB2	PSMB2		Proteasome subunit beta type-2
PSMB3	PSMB3	PSMB3	PSMB3		Proteasome subunit beta type-3
PSMB5	PSMB5	PSMB5	PSMB5		Proteasome subunit beta type-5
PSMB6	PSMB6	PSMB6	PSMB6		Proteasome subunit beta type-6
PSMC3	PSMC3	PSMC3	PSMC3		26S proteasome regulatory subunit 6A
PSMC6	PSMC6	PSMC6	PSMC6		26S proteasome regulatory subunit 10B
PSMD2	PSMD2	PSMD2	PSMD2		26S proteasome non-ATPase regulatory subunit 2
PSMD3	PSMD3	PSMD3	PSMD3		26S proteasome non-ATPase regulatory subunit 3
PSMD11	PSMD11	PSMD11	PSMD11		26S proteasome non-ATPase regulatory subunit 11
ATP5B	ATP5B	ATP5B	ATP5B		ATP synthase subunit beta, mitochondrial
TUBA1C	TUBA1C	TUBA1C	TUBA1C		Tubulin alpha-1C chain
EIF2S1	EIF2S1	EIF2S1			Eukaryotic translation initiation factor 2 subunit 1
UQCRCF1	UQCRCF1	UQCRCF1	UQCRCF1		Ubiquinol-cytochrome c reductase, rieske iron-sulfur polypeptide 1
HSPA5		HSPA5			78 kDa glucose-regulated protein
HSPA8					Heat shock cognate 71 kDa protein
MT-CO1	MT-CO1	MT-CO1	MT-CO1		Mitochondrially encoded cytochrome c oxidase i
	GNAQ		GNAQ		Guanine nucleotide-binding protein G(q) subunit alpha
	CALML5	CALML5			Calmodulin-like protein 5
CACNA1S	CACNA1S				Voltage-dependent L-type calcium channel subunit alpha-1S
			ACTR1A		Alpha-centractin
			ACTR1B		Beta-centractin
	APOE				Apolipoprotein E
			B4GALNT1		Beta-1,4 N-acetylgalactosaminyltransferase 1
C6					Complement component C6
C7					Complement component C7
C8A					Complement component C8 alpha chain
C9					Complement component C9
	CAPN1				Calpain-1 catalytic subunit
			CLTC		Clathrin heavy chain 1
	GAPDH				Glyceraldehyde-3-phosphate

		dehydrogenase
	GLB1	Beta-galactosidase
GNAS		Guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas
	GPX3	Glutathione peroxidase 3
	HEXB	Beta-hexosaminidase subunit beta
	HEXA	Beta-hexosaminidase subunit alpha
IDE		Insulin-degrading enzyme
LPL		Lipoprotein lipase
NCSTN		Nicastrin
RTN3		Reticulon-3
RTN4		Reticulon-4
	UBA1	Ubiquitin-like modifier-activating enzyme 1

**Table 2.** 47 filtered proteins by KEGG pathways with the online tool STRING. AD: Alzheimer's disease; PD: Parkinson's disease; HD: Huntington's disease.