

SPOT	UniProt ID ^u	SCORE/ MATCHES	SEQ. COV.	PROTEIN	PROTEIN CLASS ^p	LOCALIZATION ^u	MOLECULAR FUNCTION ^u	BIOLOGICAL PROCESS ^u
b24	Q27954 (COPA_BOVIN)	120/17	12%	Coatomer subunit alpha	Plasma proteins, Predicted intracellular proteins, Disease related genes,	INTRACELLULAR (Golgi apparatus membrane) EXTRACELLULAR (secreted)	Hormone activity Structural molecule activity	Intracellular protein transport (ER - Golgi vesicle- mediated transport)
b34	Q58DG6 (FXL20_BOVIN)	96/9	20%	F-box/LRR-repeat protein 20	Plasma proteins, Predicted intracellular proteins,	INTRACELLULAR (cytosol)	Unknown	behavioral fear response ubiquitin conjugation pathway
b35	Q9GK13 (MUTA_BOVIN)	104/11	26%	Methylmalonyl-CoA mutase, mitochondrial	Plasma proteins, Predicted intracellular proteins, Disease related genes, Enzymes, FDA approved drug targets,	INTRACELLULAR (mitochondrion matrix)	GTPase activity Cobalamin binding Metal ion binding Catalytic activity	Isomerase Metabolism
b45	Q29RR5 (TFP11_BOVIN)	72/10	13%	Tuftelin-interacting protein 11	Plasma proteins, Predicted intracellular proteins,	INTRACELLULAR (nucleus, cytosol)	Nucleic acid binding	Biom mineralizati on Spliceosomal complex disassembly
b49	PODM93 (APOA2_LEPW E)	60/3	37%	Apolipoprotein A-II	Plasma proteins, Predicted secreted proteins, Predicted intracellular proteins, Cancer-related genes, Candidate	EXTRACELLULAR (secreted)	Lipid binding	Lipid transport Lipoprotein metabolism

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					cardiovascular disease genes,			
b50	P68226 (HBB_LAMGL)	56/5	49%	Hemoglobin subunit beta	Plasma proteins, Predicted intracellular proteins, Transporters, Disease related genes, FDA approved drug targets,	INTRACELLULAR (cytosol, erythrocytes)	Heme binding Metal ion binding Oxygen binding Oxygen carrier activity	Oxygen transport Transport
b54	Q5E9B1 (LDHB_BOVIN)	74/7	21%	L-lactate dehydrogenase B chain	Plasma proteins, Predicted intracellular proteins, Enzymes, Disease related genes, Potential drug targets,	INTRACELLULAR (cytosol)	Oxidoreductase activity	Carbohydrate metabolic process
b54	Q3ZBW4 (PCNA_BOVIN)	71/6	20%	Proliferating cell nuclear antigen	Plasma proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes,	INTRACELLULAR (nucleus)	Chromatin binding DNA binding	DNA replication DNA repair
b55	Q0V8H6 (MOV10_BOVIN)	68/10	12%	Putative helicase MOV-10	Plasma proteins, Predicted intracellular proteins, Enzymes,	INTRACELLULAR (cytosol)	ATP binding Helicase activity RNA binding	miRNA-mediated gene silencing mRNA cleavage
b57	P81425	97/11	13%	Dipeptidyl peptidase 4	Plasma proteins,	INTRACELLULAR	Catalytic	Cell adhesion

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	(DPP4_BOVIN)				Predicted intracellular proteins, Predicted membrane proteins, Enzymes, FDA approved drug targets, CD markers,	(cell membrane) EXTRACELLULAR (secreted)	activity Signalling receptor binding	Endothelial cell migration T-cell costimulation
b58	B2D1U1 (CBG_URSAR)	73/6	21%	Corticosteroid-binding globulin	Plasma proteins, Predicted secreted proteins, Disease related genes,	EXTRACELLULAR (secreted)	Steroid binding	Transport
b60	P82533 (CRYAA_ERIEU)	61/3	14%	Alpha-crystallin A chain	Plasma proteins, Predicted intracellular proteins, Disease related genes,	INTRACELLULAR (nucleus, cytosol)	Metal ion binding Eye lens structure	Eye lens structure
b61	O46375 (TTHY_BOVIN)	80/4	46%	Transthyretin	Plasma proteins, Predicted secreted proteins, Disease related genes, Cancer-related genes,	EXTRACELLULAR (Secreted)	Hormone activity Thyroid hormone binding	Thyroid hormone transport
b62	P15497 (APOA1_BOVIN)	245/22	68%	Apolipoprotein A-I	Plasma proteins, Predicted secreted proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes,	EXTRACELLULAR (secreted)	Lipid binding	Cholesterol metabolism & transport Lipid metabolism & transport Lipoprotein

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					Candidate cardiovascular disease genes,			metabolic process
b63	P15497 (APOA1_BOVIN)	252/22	60%	Apolipoprotein A-I	Plasma proteins, Predicted secreted proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes, Candidate cardiovascular disease genes,	EXTRACELLULAR (secreted)	Lipid binding	Cholesterol metabolism & transport Lipid metabolism & transport Lipoprotein metabolic process
b64	P15497 (APOA1_BOVIN)	147/16	52%	Apolipoprotein A-I	Plasma proteins, Predicted secreted proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes, Candidate cardiovascular disease genes,	EXTRACELLULAR (secreted)	Lipid binding	Cholesterol metabolism & transport Lipid metabolism & transport Lipoprotein metabolic process
b30	P10522 (MYPO_BOVIN)	86/8	21%	Myelin protein P0	Predicted membrane proteins , Predicted intracellular proteins, Disease related genes,	INTRACELLULAR (cell membrane, myelin sheath)	Unknown	Cell aggregation Cell-to-cell adhesion Myelination
b33	Q2HJB9 (TMM98_BOVIN)	90/6	30%	Transmembrane protein 98	Predicted membrane proteins, Disease related genes,	INTRACELLULAR (cell membrane)	Unknown	Unknown

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b25	A1A4L4 (MINY4_BOVIN)	92/11	15%	Probable ubiquitin carboxyl-terminal hydrolase MINDY-4	Predicted intracellular proteins, Enzymes,	INTRACELLULAR (cytosol, cell membrane)	Thiol- dependent ubiquitinyl hydrolase activity	Ubiquitin conjugation pathway
b26	Q5E9F9 (PRS7_BOVIN)	60/13	33%	26S proteasome regulatory subunit 7	Predicted intracellular proteins,	INTRACELLULAR (nucleus, cytosol)	Proteasome- activating ATPase activity ATP binding	Ubiquitin- dependent protein catabolic pathway
b27	Q0VBY1 (ODF2L_BOVIN)	63/9	18%	Outer dense fiber protein 2-like	Predicted intracellular proteins,	INTRACELLULAR (cytosol, mitochondrion)	unknown	Cell projection organization Negative regulation of cilium assembly
b53	Q0VBY1 (ODF2L_BOVIN)	76/7	17%	Outer dense fiber protein 2-like	Predicted intracellular proteins,	INTRACELLULAR (cytosol, mitochondrion)	unknown	Cell projection organization Negative regulation of cilium assembly
b29	Q2MJS5 (MT3_BOSMU)	59/4	72%	Metallothionein-3	Predicted intracellular proteins,	INTRACELLULAR (nucleus, synaptic vesicles)	Heavy metals ion binding Drug binding Protein kinase activity	Astrocyte development Heavy ions homeostasis
b43	Q5E977 (F118B_BOVIN)	75/8	14%	Protein FAM118B	Predicted intracellular proteins,	INTRACELLULAR (nucleus)	Unknown	Cajal body organization

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b44	A5PK00 (VPS36_BOVIN)	104/10	32%	Vacuolar protein- sorting-associated protein 36	Predicted intracellular proteins,	INTRACELLULAR (nucleus, endosome in most tissues)	Lipid binding Ubiquitin binding	Protein transport Transcription Regulation of transcription
b46	P46446 (ACY2_BOVIN)	72/7	20%	Aspartoacylase	Predicted intracellular proteins, Disease related genes, Enzymes, Potential drug targets,	INTRACELLULAR (nucleus, cytosol)	Metal ion binding Hydrolase activity	Metabolic process
b47	Q5E9B4 (E12BB_BOVIN)	81/8	23%	Translation initiation factor eIF-2B subunit beta	Predicted intracellular proteins, Disease related genes,	INTRACELLULAR (cytosol)	ATP, GTP binding Translation initiation factor activity	Central nervous system development Myelination Ovarian development T-cell receptor signalling pathway Translation initiation (protein biosynthesis)
b48	Q3ZC08 (ANXA9_BOVI N)	95/8	31%	Annexin A9	Predicted intracellular proteins,	INTRACELLULAR (cell membrane, cytosol)	Calcium ion binding Calcium- dependent phospholipid binding	Low affinity receptor for acetylcholine
b52	Q2T9L9	60/4	14%	General transcription	Predicted intracellular	INTRACELLULAR	ATP binding	Transcription

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	(T2FB_BOVIN)			factor IIF subunit 2	proteins, Enzymes,	(nucleus)	DNA binding Helicase activity	regulation Trancrption initiation
b55	Q32L18 (BTBDG_BOVIN)	94/9	23%	BTB/POZ domain- containing protein 16	Predicted intracellular proteins,	INTRACELLULAR (nucleus)	Unknown	Unknown
b60	A4FV72 (PPIE_BOVIN)	73/6	13%	Peptidyl-prolyl cis-trans isomerase E	Predicted intracellular proteins, Enzymes,	INTRACELLULAR (nucleus)	Cyclosporin A binding mRNA binding Catalytic activity	mRNA splicing Protein folding Isomerisation

^u – data obtained from <https://www.uniprot.org/>

^p – data obtained from <https://www.proteinatlas.org/>

Matches - the number of peptides in the MS spectrum that match the sequences from the database.

SEQ COV = sequence coverage - what percentage of the protein found in the study is covered by peptides from the MS spectrum.