

SPOT	UniProt ID <sup>u</sup>	SCORE/ MATCHES	SEQ. COV.	PROTEIN	PROTEIN CLASS <sup>p</sup>	LOCALIZATION <sup>u</sup>	MOLECULAR FUNCTION <sup>u</sup>	BIOLOGICAL PROCESS <sup>u</sup>
b24	Q27954 (COPA_BOVIN)	120/17	12%	<b>Coatomer subunit alpha</b>	<b>Plasma proteins,</b> Predicted intracellular proteins, Disease related genes,	<b>INTRACELLULAR</b> (Golgi apparatus membrane) <b>EXTRACELLULAR</b> (secreted)	Hormone activity Structural molecule activity	Intracellular protein transport (ER - Golgi vesicle- mediated transport)
b34	Q58DG6 (FXL20_BOVIN )	96/9	20%	<b>F-box/LRR-repeat protein 20</b>	<b>Plasma proteins,</b> Predicted intracellular proteins,	<b>INTRACELLULAR</b> (cytosol)	Unknown	behavioral fear response ubiquitin conjugation pathway
b35	Q9GK13 (MUTA_BOVIN )	104/11	26%	<b>Methylmalonyl-CoA mutase, mitochondrial</b>	<b>Plasma proteins,</b> Predicted intracellular proteins, Disease related genes, Enzymes, FDA approved drug targets,	<b>INTRACELLULAR</b> (mitochondrion matrix)	GTPase activity Cobalamin binding Metal ion binding Catalytic activity	Isomerase Metabolism
b45	Q29RR5 (TFP11_BOVIN )	72/10	13%	<b>Tuftelin-interacting protein 11</b>	<b>Plasma proteins,</b> Predicted intracellular proteins,	<b>INTRACELLULAR</b> (nucleus, cytosol)	Nucleic acid binding	Biom mineralizati on Spliceosomal complex disassembly
b49	P0DM93 (APOA2_LEPW E)	60/3	37%	<b>Apolipoprotein A-II</b>	<b>Plasma proteins,</b> Predicted secreted proteins, Predicted intracellular proteins, Cancer-related genes, Candidate	<b>EXTRACELLULAR</b> (secreted)	Lipid binding	Lipid transport Lipoprotein metabolism

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

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	(DPP4_BOVIN)				Predicted intracellular proteins, Predicted membrane proteins, Enzymes, FDA approved drug targets, CD markers,	(cell membrane) <b>EXTRACELLULAR</b> (secreted)	activity Signalling receptor binding	Endothelial cell migration T-cell costimulation
b58	B2D1U1 (CBG_URSAR)	73/6	21%	<b>Corticosteroid-binding globulin</b>	<b>Plasma proteins,</b> Predicted secreted proteins, Disease related genes,	<b>EXTRACELLULAR</b> (secreted)	Steroid binding	Transport
b60	P82533 (CRYAA_ERIEU)	61/3	14%	<b>Alpha-crystallin A chain</b>	<b>Plasma proteins,</b> Predicted intracellular proteins, Disease related genes,	<b>INTRACELLULAR</b> (nucleus, cytosol)	Metal ion binding Eye lens structure	Eye lens structure
b61	O46375 (TTHY_BOVIN)	80/4	46%	<b>Transthyretin</b>	<b>Plasma proteins,</b> Predicted secreted proteins, Disease related genes, Cancer-related genes,	<b>EXTRACELLULAR</b> (Secreted)	Hormone activity Thyroid hormone binding	Thyroid hormone transport
b62	P15497 (APOA1_BOVIN)	245/22	68%	<b>Apolipoprotein A-I</b>	<b>Plasma proteins,</b> Predicted secreted proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes,	<b>EXTRACELLULAR</b> (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%	<b>Apolipoprotein A-I</b>	<b>Plasma proteins,</b> Predicted secreted proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes, Candidate cardiovascular disease genes,	<b>EXTRACELLULAR</b> (secreted)	Lipid binding	Cholesterol metabolism & transport Lipid metabolism & transport Lipoprotein metabolic process
b64	P15497 (APOA1_BOVIN)	147/16	52%	<b>Apolipoprotein A-I</b>	<b>Plasma proteins,</b> Predicted secreted proteins, Predicted intracellular proteins, Disease related genes, Cancer-related genes, Candidate cardiovascular disease genes,	<b>EXTRACELLULAR</b> (secreted)	Lipid binding	Cholesterol metabolism & transport Lipid metabolism & transport Lipoprotein metabolic process
b30	P10522 (MYP0_BOVIN)	86/8	21%	<b>Myelin protein P0</b>	<b>Predicted membrane proteins ,</b> Predicted intracellular proteins, Disease related genes,	<b>INTRACELLULAR</b> (cell membrane, myelin sheath)	Unknown	Cell aggregation Cell-to-cell adhesion Myelination
b33	Q2HJB9 (TMM98_BOVIN)	90/6	30%	<b>Transmembrane protein 98</b>	<b>Predicted membrane proteins,</b> Disease related genes,	<b>INTRACELLULAR</b> (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%	<b>Vacuolar protein- sorting-associated protein 36</b>	<b>Predicted intracellular proteins,</b>	<b>INTRACELLULAR</b> (nucleus, endosome in most tissues)	Lipid binding Ubiquitin binding	Protein transport Transcription Regulation of transcription
b46	P46446 (ACY2_BOVIN)	72/7	20%	<b>Aspartoacylase</b>	<b>Predicted intracellular proteins,</b> Disease related genes, Enzymes, Potential drug targets,	<b>INTRACELLULAR</b> (nucleus, cytosol)	Metal ion binding Hydrolase activity	Metabolic process
b47	Q5E9B4 (EI2BB_BOVIN )	81/8	23%	<b>Translation initiation factor eIF-2B subunit beta</b>	<b>Predicted intracellular proteins,</b> Disease related genes,	<b>INTRACELLULAR</b> (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%	<b>Annexin A9</b>	<b>Predicted intracellular proteins,</b>	<b>INTRACELLULAR</b> (cell membrane, cytosol)	Calcium ion binding Calcium- dependent phospholipid binding	Low affinity receptor for acetylcholine
b52	Q2T9L9	60/4	14%	<b>General transcription</b>	<b>Predicted intracellular</b>	<b>INTRACELLULAR</b>	ATP binding	Transcription

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

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

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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.