

Supplementary Table 4. List of the 188 proteins found dysregulated in the periprostatic adipose tissue-derived media from benign prostate hyperplasia and prostate cancer patients.

Protein Name	Symbol	UniProt ID	pval	Biological Function
Coronin-1A	CORO1A	P31146	1,71E-06	Regulates actin cytoskeleton dynamics and cell migration.
Isoform 4 of Heterochromatin protein 1-binding protein 3	HP1BP3	Q5SSJ5	1,18E-05	Heterochromatin protein that regulates chromatin structure and gene silencing.
Isoform 3 of Cocaine esterase	CES2	O00748	2,54E-05	Hydrolyzes ester and amide bonds; involved in drug metabolism.
40S ribosomal protein S21	RPS21	P63220	1,74E-04	Component of the 40S ribosomal subunit involved in translation.
Isoform 10 of CD44 antigen	CD44	P16070	2,76E-04	Cell-surface glycoprotein involved in cell adhesion and migration.
Isoform D of Plasma membrane calcium-transporting ATPase 1	ATP2B1	P20020	2,95E-04	Pumps calcium out of the cytoplasm across the plasma membrane.
Barrier-to-autointegration factor	BANF1	O75531	3,63E-04	Involved in nuclear assembly and DNA replication.
Isoform 2 of Protein FMC1 homolog	FMC1	Q9Y3D7	8,27E-04	Assembly factor for mitochondrial ATP synthase complex.
Isoform 2 of Protein disulfide-isomerase A6	PDIA6	Q15084	8,40E-04	Catalyzes disulfide bond formation and isomerization in the ER.
Isoform 2 of EGF-containing fibulin-like extracellular matrix protein 1	EFEMP1	Q12805	9,05E-04	Extracellular matrix glycoprotein involved in tissue homeostasis.
Interstitial collagenase	MMP1	P03956	9,77E-04	Cleaves interstitial collagens types I, II, and III.
Immunoglobulin kappa variable 6D-21	IGKV6D-21	A0A075B6K0	1,06E-03	Immunoglobulin kappa variable region gene segment.
Protein disulfide-isomerase A4	PDIA4	P13667	1,46E-03	ER chaperone catalyzing disulfide bond formation and isomerization.
Heat shock protein beta-1	HSPB1	P04792	1,47E-03	Small heat shock protein that prevents protein aggregation.
Isoform 2 of 60S ribosomal protein L12	RPL12	P30050	1,65E-03	Component of the 60S ribosomal subunit involved in translation.
Collagen alpha-1(III) chain	COL3A1	P02461	1,96E-03	Major structural component of type III collagen fibers.
Isoform 2 of Leucine-rich repeat flightless-interacting protein 1	LRRFIP1	Q32MZ4	1,98E-03	Transcriptional repressor involved in Wnt signaling regulation.
Isoform Short of Latent-transforming growth factor beta-binding protein 1	LTBP1	Q14766	2,29E-03	Regulates TGF-beta activation and extracellular matrix assembly.
Immunoglobulin kappa variable 1-16	IGKV1-16	P01602	2,51E-03	Immunoglobulin kappa variable region gene segment.
Histone H1.4	H1-4	P10412	2,83E-03	Linker histone that compacts chromatin and regulates gene expression.
Isoform 2 of Protein phosphatase methylesterase 1	PPME1	Q9Y570	3,07E-03	Protein phosphatase 2A methylesterase that regulates PP2A activity.
Galectin-1	LGALS1	P09382	3,17E-03	Beta-galactoside-binding lectin involved in cell growth and apoptosis.
Isoform 2 of LIM and cysteine-rich domains protein 1	LMCD1	Q9UKJ1	3,61E-03	LIM domain protein involved in cardiac hypertrophy signaling.
EF-hand domain-containing protein D2	EFHD2	Q96C19	3,91E-03	Calcium-binding protein involved in B-cell development and apoptosis.
Isoform 2 of Heterogeneous nuclear ribonucleoprotein Q	SYNCRIP	O60506	4,06E-03	RNA-binding protein involved in mRNA processing and export.
Histone HIST2H3PS2	H3-2	Q71DI3	4,08E-03	Core histone that packages DNA into nucleosomes.
Isoform 2 of Sorcin	SRI	P30626	4,10E-03	Calcium-binding protein that modulates ryanodine receptor activity.
60S acidic ribosomal protein P0	RPLP0	P05388	4,17E-03	Component of the 60S ribosomal subunit; essential for translation.
Fibrinogen alpha chain	FGA	P02671	4,33E-03	Clotting factor converted by thrombin to fibrin during coagulation.

Isoform 2 of Microfibril-associated glycoprotein 4	MFAP4	P55083	4,50E-03	Microfibril-associated protein involved in elastic fiber assembly.
Isoform 2 of Adaptin ear-binding coat-associated protein 2	NECAP2	Q9ULB1	4,85E-03	Adaptor protein involved in clathrin-mediated endocytosis.
Glutathione peroxidase 3	GPX3	P49908	4,89E-03	Antioxidant enzyme protecting cells from oxidative stress.
Isoform 2 of Liver carboxylesterase 1	CES1	P23141	4,93E-03	Serine hydrolase involved in lipid metabolism and drug detoxification.
Isoform 2 of BRO1 domain-containing protein BROX	BROX	Q5VW32	5,23E-03	BRO1 domain protein involved in ESCRT-mediated membrane remodeling.
Isoform Delta12 of Platelet endothelial cell adhesion molecule	PECAM1	P16284	5,38E-03	Cell adhesion molecule mediating leukocyte transmigration.
Isoform 2 of Collagen alpha-3(VI) chain	COL6A3	P12111	5,52E-03	Component of type VI collagen important for muscle and connective tissue.
Vasodilator-stimulated phosphoprotein	VASP	P50552	5,76E-03	Actin polymerization regulator linking signal transduction to cytoskeleton.
Endoplasmic	HSP90B1	P14625	5,87E-03	ER chaperone assisting in protein folding and quality control.
Nucleoprotein TPR	TPR	P12270	5,91E-03	Scaffold protein of the nuclear pore complex involved in mRNA export.
Vesicle-fusing ATPase	NSF	P46459	6,91E-03	ATPase required for vesicle-mediated intracellular transport.
Transforming protein RhoA	RHOA	P61586	7,28E-03	GTPase that regulates actin cytoskeleton organization and cell contraction.
Probable serine carboxypeptidase CPVL	CPVL	Q9UHG3	7,38E-03	Serine carboxypeptidase expressed in monocytes and macrophages.
Immunoglobulin lambda variable 3-9	IGLV3-9	P01715	7,74E-03	Immunoglobulin lambda variable region gene segment.
Ras suppressor protein 1	RSU1	P47712	7,93E-03	Suppresses Ras transformation and regulates integrin signaling.
Isoform 1 of Ubiquitin-conjugating enzyme E2 variant 1	UBE2V1	Q13404	7,99E-03	Ubiquitin-conjugating enzyme variant that enhances DNA damage tolerance.
Isoform 2 of Regulator of microtubule dynamics protein 3	RMDN3	Q9UGP0	8,12E-03	Regulator of microtubule dynamics involved in cell division.
Isoform 10 of Aspartyl/asparaginyl beta-hydroxylase	ASPH	Q12797	8,28E-03	Hydroxylase that modifies EGF-like domains; involved in cell migration.
Isoform 2 of Ficolin-2	FCN2	O15263	8,82E-03	Serum lectin activating the complement system via ficolin pathway.
Glutamate--cysteine ligase regulatory subunit	GCLM	P48507	9,14E-03	Regulatory subunit of glutamate-cysteine ligase for glutathione synthesis.
Spectrin alpha chain, erythrocytic 1	SPTA1	P02549	9,15E-03	Structural component of the erythrocyte membrane cytoskeleton.
Lipopolysaccharide-binding protein	LBP	P18428	9,15E-03	Binds lipopolysaccharide and facilitates its recognition by CD14.
Myosin-2	MYH2	Q9UKX2	9,33E-03	Myosin heavy chain isoform of fast-twitch skeletal muscle fibers.
Crk-like protein	CRKL	P46109	9,48E-03	Adaptor protein mediating signals from Bcr-Abl and growth factor receptors.
Tubulin beta-6 chain	TUBB6	Q9BUF5	9,54E-03	Beta-tubulin isotype forming heterodimers for microtubule assembly.
Dystroglycan	DAG1	Q14118	9,59E-03	Cell adhesion receptor connecting extracellular matrix to cytoskeleton.
Isoform 2 of Myosin-14	MYH14	Q7Z406	9,69E-03	Non-muscle myosin heavy chain involved in cell motility and division.
GDP-L-fucose synthase	GFUS	Q13630	1,01E-02	Catalyzes the final step in de novo GDP-L-fucose biosynthesis.
Isoform 2 of Cullin-3	CUL3	Q13618	1,03E-02	Core component of E3 ubiquitin ligase complexes for protein degradation.
Isoform 2 of F-actin-capping protein subunit beta	CAPZB	P47756	1,04E-02	Caps the barbed end of actin filaments to regulate polymerization.

Isoform 2 of Cysteine--tRNA ligase, cytoplasmic	CARS1	P49589	1,06E-02	Cytoplasmic enzyme charging tRNA with cysteine for translation.
Alpha-2-macroglobulin	A2M	P01023	1,20E-02	Broad-spectrum protease inhibitor and cytokine transporter in plasma.
Protein transport protein Sec23A	SEC23A	Q15436	1,26E-02	Component of COPII vesicles mediating ER-to-Golgi protein transport.
Isoform 2 of Sulphydryl oxidase 1	QSOX1	O00391	1,30E-02	Sulphydryl oxidase that catalyzes disulfide bond formation extracellularly.
Alpha-1-acid glycoprotein 1	ORM1	P02763	1,30E-02	Acute-phase plasma glycoprotein with immunomodulatory functions.
Isoform 2 of Spectrin beta chain, erythrocytic	SPTB	P11277	1,33E-02	Structural component of the erythrocyte membrane cytoskeleton.
Insulin-like growth factor-binding protein 6	IGFBP6	P24592	1,38E-02	Inhibitory binding protein preferentially binding IGF-II.
Isoform 2 of Lymphocyte-specific protein 1	LSP1	P33240	1,45E-02	F-actin binding protein expressed in lymphocytes and neutrophils.
Calmodulin-1	CALM1	P0DP23	1,46E-02	Calcium-sensing protein mediating calcium-dependent signaling.
Isoform 1 of Core histone macro-H2A.1	MACROH2A1	O75367	1,51E-02	Histone variant associated with inactive X chromosome and gene repression.
Isoform 2 of Annexin A7	ANXA7	P20073	1,52E-02	Calcium-dependent phospholipid-binding protein involved in membrane fusion.
14-3-3 protein epsilon	YWHAE	P62258	1,56E-02	Adaptor protein regulating signal transduction and cell cycle.
Isoform Smooth muscle of Myosin light polypeptide 6	MYL6	P60660	1,57E-02	Regulatory myosin light chain involved in smooth muscle contraction.
Aspartate aminotransferase, cytoplasmic	GOT1	P17174	1,58E-02	Catalyzes transamination between aspartate and oxaloacetate.
Nicotinamide N-methyltransferase	NNMT	P40261	1,59E-02	Methylates nicotinamide; involved in cellular metabolism and detoxification.
Prefoldin subunit 6	PFDN6	O15212	1,61E-02	Subunit of the prefoldin chaperone complex assisting protein folding.
Isoform 2 of Thiosulfate:glutathione sulfurtransferase	TSTD1	Q8NFU3	1,66E-02	Sulfurtransferase involved in cysteine catabolism.
Fibrillin-1	FBN1	P35555	1,66E-02	Major component of extracellular microfibrils in connective tissue.
Flotillin-2	FLOT2	O75955	1,77E-02	Lipid raft-associated protein involved in endocytosis and signaling.
Isoform 2 of LIM and senescent cell antigen-like-containing domain protein 1	LIMS1	P48059	1,80E-02	LIM domain protein linking integrins to the actin cytoskeleton.
Isoform Er9 of Ankyrin-1	ANK1	P16157	1,85E-02	Links integral membrane proteins to the erythrocyte spectrin skeleton.
Collagen alpha-1(I) chain	COL1A1	P02452	1,85E-02	Major component of type I collagen fibers in bone and connective tissue.
Alanine aminotransferase 1	GPT	P24298	1,87E-02	Catalyzes transfer of amino group from alanine to oxoglutarate.
Band 4.1-like protein 2	EPB41L2	O43491	1,88E-02	Membrane-cytoskeleton linker involved in cell shape and migration.
Glutamate--cysteine ligase catalytic subunit	GCLC	P48506	1,90E-02	Catalytic subunit of the rate-limiting enzyme in glutathione synthesis.
Acyl-coenzyme A thioesterase 1	ACOT1	Q86TX2	1,90E-02	Thioesterase that hydrolyzes long-chain acyl-CoA to free fatty acids.
Cell surface glycoprotein MUC18	MCAM	P43121	1,91E-02	Cell adhesion molecule involved in angiogenesis and tumor metastasis.
Cytochrome c	CYCS	P99999	1,91E-02	Electron carrier in the mitochondrial respiratory chain; triggers apoptosis.
Perilipin-1	PLIN1	O60240	1,93E-02	Lipid droplet surface protein regulating lipid storage and lipolysis.

Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform	PPP2R2A	P63151	1,97E-02	Regulatory B subunit of protein phosphatase 2A; controls PP2A substrate specificity.
Glypican-1	GPC1	P35052	2,02E-02	Cell surface heparan sulfate proteoglycan involved in cell growth signaling.
Cystatin-A	CSTA	P01040	2,04E-02	Cysteine protease inhibitor expressed in epithelial tissues.
Proliferation-associated protein 2G4	PA2G4	Q9UQ80	2,09E-02	RNA-binding protein involved in ribosome biogenesis and cell proliferation.
Secreted frizzled-related protein 1	SFRP1	Q8N474	2,10E-02	Soluble antagonist of Wnt signaling pathway.
Isoform 3 of Ubiquitin-conjugating enzyme E2 L3	UBE2L3	P68036	2,11E-02	Ubiquitin-conjugating enzyme involved in NF-kB and immune signaling.
Serpin H1	SERPINH1	P50454	2,15E-02	ER chaperone essential for procollagen folding and trafficking.
Phosphatidylethanolamine-binding protein 1	PEBP1	P30086	2,15E-02	Phosphatidylethanolamine-binding protein; inhibits Raf kinase activity.
Myoglobin	MB	P02144	2,15E-02	Oxygen storage protein facilitating oxygen diffusion in muscle cells.
Isoform 2 of Dematin	DMTN	Q08495	2,20E-02	Actin-bundling protein of the erythrocyte membrane skeleton.
Calpain-2 catalytic subunit	CAPN2	P17655	2,30E-02	Calcium-dependent cysteine protease regulating cell signaling and motility.
Isoform 2 of Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic	GPD1	P21695	2,32E-02	Catalyzes glycerol-3-phosphate production linking glycolysis to lipid synthesis.
Mimecan	OGN	P20774	2,33E-02	Small leucine-rich proteoglycan of bone and other connective tissues.
Peroxiredoxin-4	PRDX4	Q13162	2,33E-02	ER-resident peroxidase involved in oxidative protein folding.
Myosin-1	MYH1	P12882	2,33E-02	Myosin heavy chain isoform of type IIX skeletal muscle fibers.
Isoform 2 of Nicotinate phosphoribosyltransferase	NAPRT	Q6XQN6	2,36E-02	Catalyzes the first step of the Preiss-Handler NAD ⁺ biosynthesis pathway.
Isoform 2 of ATP synthase-coupling factor 6, mitochondrial	ATP5PF	P18859	2,39E-02	Subunit of mitochondrial ATP synthase coupling factor 6.
Metalloproteinase inhibitor 1	TIMP1	P01033	2,39E-02	Inhibitor of matrix metalloproteinases regulating ECM remodeling.
Isoform 2 of Activator of 90 kDa heat shock protein ATPase homolog 1	AHSA1	O95456	2,39E-02	Co-chaperone activating the ATPase activity of Hsp90.
Lamin-B1	LMNB1	P20700	2,46E-02	Type V intermediate filament providing structural support to the nucleus.
Isoform 2 of Ran-specific GTPase-activating protein	RANBP1	P43487	2,47E-02	Regulates Ran GTPase activity in nuclear transport and cell cycle.
Isoform 2 of Porphobilinogen deaminase	HMBS	P08397	2,47E-02	Third enzyme in heme biosynthesis; catalyzes porphobilinogen polymerization.
Immunoglobulin kappa variable 2D-29	IGKV2D-29	A0A075B6L2	2,48E-02	Immunoglobulin kappa variable region gene segment.
Isoform 2 of GDP-fucose protein O-fucosyltransferase 1	POFUT1	Q9Y608	2,48E-02	O-fucosylates EGF-like repeats; required for Notch ligand binding.
Histone H2B type 1-J	H2BC11	P06899	2,48E-02	Core histone forming the nucleosome octamer with H3, H4, and H2A.
Isoform 2 of Aquaporin-1	AQP1	P29972	2,56E-02	Constitutively expressed water channel in erythrocytes and kidney.
Isoform Long of Protein 4.2	EPB42	P16452	2,62E-02	Transmembrane protein maintaining erythrocyte shape and deformability.
Isoform 2 of Neurotrimin	NTM	O15151	2,63E-02	GPI-anchored cell adhesion molecule expressed in the brain.
Immunoglobulin lambda variable 3-10	IGLV3-10	P01718	2,64E-02	Immunoglobulin lambda variable region gene segment.
Plexin domain-containing protein 2	PLXDC2	Q9ULL3	2,68E-02	Receptor involved in angiogenesis and endothelial cell signaling.

Serine/threonine-protein kinase OSR1	OXSR1	O95747	2,71E-02	Serine/threonine kinase regulating ion transport and osmotic stress response.
Myeloid-derived growth factor	MYDGF	Q969H8	2,72E-02	Secreted growth factor promoting cardiomyocyte survival and angiogenesis.
Fatty acid-binding protein 5	FABP5	Q01469	2,77E-02	Fatty acid carrier protein regulating lipid metabolism and signaling.
Mast cell carboxypeptidase A	CPA3	P15088	2,77E-02	Mast cell carboxypeptidase that cleaves C-terminal residues from substrates.
D-aminoacyl-tRNA deacylase 1	DTD1	Q8TEA8	2,78E-02	Deacylase that removes mischarged amino acids from tRNA.
Peptidyl-prolyl cis-trans isomerase FKBP4	FKBP4	Q02790	2,88E-02	Peptidyl-prolyl isomerase; co-chaperone in steroid receptor complexes.
Marginal zone B- and B1-cell-specific protein	MZB1	Q8WU39	2,93E-02	ER protein facilitating immunoglobulin secretion in plasma cells.
Isoform 2 of Fibulin-2	FBLN2	P98095	2,94E-02	Extracellular matrix glycoprotein involved in elastic fiber assembly.
Density-regulated protein	DENR	O43583	2,97E-02	Stimulates translation reinitiation and ribosome recycling.
Isoform 2 of Apoptosis-associated speck-like protein containing a CARD	PYCARD	Q9ULZ3	2,98E-02	Adaptor protein linking pattern recognition receptors to caspase activation.
Isoform 2 of Nucleoside diphosphate kinase A	NME1	P15531	3,01E-02	Nucleoside diphosphate kinase A; suppresses tumor metastasis.
Immunoglobulin heavy constant alpha 2	IGHA2	P01877	3,01E-02	Constant region of immunoglobulin heavy chain alpha-2 (IgA2).
Pleckstrin	PLEK	P08178	3,04E-02	Substrate for PKC in platelets; involved in platelet activation.
Alpha-1-acid glycoprotein 2	ORM2	P19652	3,04E-02	Acute-phase plasma protein with anti-inflammatory and immunomodulatory roles.
Syntaxin-11	STX11	O75558	3,13E-02	SNARE protein involved in vesicle fusion and secretory lysosome exocytosis.
Isoform Cytoplasmic of Fumarate hydratase, mitochondrial	FH	P07954	3,14E-02	Catalyzes hydration of fumarate to malate in the TCA cycle.
Isoform 2B of Cytoplasmic dynein 1 intermediate chain 2	DYNC1I2	O14576	3,25E-02	Intermediate chain of cytoplasmic dynein involved in retrograde transport.
Immunoglobulin lambda variable 10-54	IGLV10-54	A0A0C4DH34	3,28E-02	Immunoglobulin lambda variable region gene segment.
CXXC motif containing zinc binding protein	CZIB	Q9Y512	3,31E-02	Zinc-binding protein involved in transcriptional regulation.
Hemoglobin subunit alpha	HBA1	P69905	3,33E-02	Alpha subunit of hemoglobin that transports oxygen in erythrocytes.
Histone H2B type 1-K	H2BC12	P06899	3,38E-02	Core histone forming the nucleosome octamer with H3, H4, and H2A.
Isoform 2 of Beta-enolase	ENO3	P13929	3,40E-02	Glycolytic enzyme predominant in skeletal muscle.
Histone H4	H4C1	P62805	3,43E-02	Core histone essential for chromatin structure and gene regulation.
Thrombospondin-1	THBS1	P07996	3,43E-02	Adhesive glycoprotein mediating cell-cell and cell-matrix interactions.
Isoform 2 of COP9 signalosome complex subunit 8	COPS8	Q99627	3,47E-02	Subunit of the COP9 signalosome regulating ubiquitin-mediated proteolysis.
26S proteasome non-ATPase regulatory subunit 7	PSMD7	P51665	3,49E-02	Non-ATPase regulatory subunit of the 26S proteasome lid.
Isoform Cytoplasmic of Glutathione reductase, mitochondrial	GSR	P00390	3,51E-02	Maintains intracellular glutathione in reduced form for antioxidant defense.
Isoform 2 of Phytanoyl-CoA dioxygenase domain-containing protein 1	PHYHD1	Q6UWP8	3,54E-02	Dioxygenase involved in phytanoyl-CoA catabolism.
Heat shock-related 70 kDa protein 2	HSPA2	P54652	3,57E-02	Heat shock protein involved in spermatogenesis and stress tolerance.

Phospholysine phosphohistidine inorganic pyrophosphate phosphatase	LHPP	Q9H008	3,59E-02	Phosphohistidine phosphatase; proposed tumor suppressor in cancer.
Isoform 2 of Protein LZIC	LZIC	Q9GZN0	3,60E-02	Leucine zipper protein with putative transcriptional regulatory function.
26S proteasome non-ATPase regulatory subunit 13	PSMD13	Q9UNM6	3,62E-02	Regulatory subunit of the 26S proteasome involved in substrate selection.
Isoform 1 of Nucleolar protein 3	NOL3	O60936	3,70E-02	Anti-apoptotic protein protecting cardiomyocytes from cell death.
Transitional endoplasmic reticulum ATPase	VCP	P55072	3,76E-02	AAA-ATPase mediating ERAD, protein disaggregation, and membrane fusion.
40S ribosomal protein S12	RPS12	P25398	3,77E-02	Component of the 40S ribosomal subunit involved in translation.
Stomatin	STOM	P27105	3,78E-02	Lipid raft-associated protein regulating ion channels in erythrocytes.
Isoform 2 of Endoplasmic reticulum aminopeptidase 1	ERAP1	Q9NZ08	3,80E-02	Aminopeptidase that trims peptides for MHC class I antigen presentation.
Protein S100-A11	S100A11	P31949	3,88E-02	Calcium-binding protein regulating cell growth and differentiation.
Adenylyl cyclase-associated protein 1	CAP1	Q01518	3,91E-02	Mediates signal transduction from Ras to adenylyl cyclase in actin dynamics.
Gamma-glutamylcyclotransferase	GGCT	O75223	3,94E-02	Catalyzes gamma-glutamyl cyclization in the glutathione degradation pathway.
COP9 signalosome complex subunit 3	COPS3	Q9UNS2	3,95E-02	Subunit of the COP9 signalosome regulating ubiquitin-mediated proteolysis.
Solute carrier family 2, facilitated glucose transporter member 1	SLC2A1	P11166	3,96E-02	Glucose transporter facilitating glucose uptake across the plasma membrane.
Adenylate kinase isoenzyme 1	AK1	P00568	3,99E-02	Catalyzes interconversion of adenine nucleotides for energy homeostasis.
Isoform B of Reticulon-4	RTN4	Q9NQC3	4,00E-02	Membrane-shaping protein that inhibits axon regeneration (Nogo protein).
Isoform 2 of E3 ubiquitin-protein ligase HUWE1	HUWE1	Q7Z6Z7	4,04E-02	E3 ubiquitin ligase that targets Mcl-1 and p53 for degradation.
m7GpppX diphosphatase	DCPS	Q96C86	4,09E-02	Scavenger mRNA decapping enzyme for RNA quality control.
Isoform 10 of C-type lectin domain family 4 member M	CLEC4M	Q9Y240	4,14E-02	Calcium-dependent lectin receptor on liver sinusoidal endothelial cells.
Isoform 2 of Fermitin family homolog 3	FERMT3	Q86UX7	4,14E-02	Integrin activator in hematopoietic cells; essential for leukocyte adhesion.
Monocyte differentiation antigen CD14	CD14	P08571	4,17E-02	Co-receptor for LPS recognition; activates innate immune responses.
Isoform 2 of cAMP-dependent protein kinase type I-alpha regulatory subunit	PRKAR1A	P10644	4,22E-02	Regulatory subunit of cAMP-dependent protein kinase type I.
Laminin subunit beta-1	LAMB1	P07942	4,23E-02	Structural subunit of laminins mediating basement membrane assembly.
Lipoma-preferred partner	LPP	Q93052	4,25E-02	LIM domain protein at cell-matrix adhesion sites linking to the nucleus.
Isoform 2 of UDP-glucose:glycoprotein glucosyltransferase 1	UGGT1	Q9NYU2	4,26E-02	UDP-glucose glycoprotein glucosyltransferase monitoring protein folding in ER.
Vasorin	VASN	Q6EMK4	4,27E-02	TGF-beta signaling modulator in vascular smooth muscle cells.
Inosine-5'-monophosphate dehydrogenase 2	IMPDH2	P12268	4,32E-02	Rate-limiting enzyme in de novo GTP biosynthesis; target for immunosuppressants.
Microsomal glutathione S-transferase 1	MGST1	P10620	4,34E-02	Membrane-bound glutathione S-transferase protecting against oxidative stress.

Phosphoglucomutase-2	PGM2	O95394	4,38E-02	Catalyzes interconversion of glucose-1-phosphate and glucose-6-phosphate.
Golgi-associated plant pathogenesis-related protein 1	GLIPR2	Q9H4G4	4,50E-02	Golgi-associated protein involved in autophagy and lipid metabolism.
Interleukin-6	IL6	P05231	4,67E-02	Pleiotropic cytokine driving acute phase response and inflammation.
60S ribosomal protein L30	RPL30	P62888	4,68E-02	Component of the 60S ribosomal subunit involved in translation.
Ras-related protein Rap-2b	RAP2B	P61225	4,72E-02	Ras-related GTPase involved in cytoskeletal organization and cell signaling.
Isoform 2 of Nidogen-1	NID1	P14543	4,79E-02	Basement membrane glycoprotein linking laminins to type IV collagen.
Ferritin heavy chain	FTH1	P02794	4,82E-02	Ferritin heavy chain catalyzing iron oxidation for cellular iron storage.
Aconitate hydratase, mitochondrial	ACO2	Q99798	4,85E-02	Mitochondrial enzyme catalyzing isomerization of citrate in the TCA cycle.
Myristoylated alanine-rich C-kinase substrate	MARCKS	P29966	4,85E-02	Substrate for PKC regulating actin cytoskeleton and membrane signaling.
Beta-2-glycoprotein 1	APOH	P02749	4,85E-02	Phospholipid-binding glycoprotein regulating coagulation and lipoprotein metabolism.
Histone H2AX	H2AX	P16104	4,88E-02	Histone variant phosphorylated at DNA double-strand breaks for repair signaling.
Vitamin K-dependent protein S	PROS1	P07225	4,89E-02	Vitamin K-dependent anticoagulant protein cofactor for protein C.
Adenosylhomocysteinase	AHCY	P23526	4,90E-02	Hydrolyzes S-adenosylhomocysteine, regulating methylation reactions.
Isoform 2 of Thioredoxin reductase 1, cytoplasmic	TXNRD1	Q16881	4,93E-02	Reduces thioredoxin; protects cells from oxidative stress.