

Supplementary Table 1. List of significantly altered proteins identified in exosomes. Common proteins (11) in the list of Top 100 proteins often identified in EVs are highlighted in bold (see Supplementary Table 3).

Protein names	Gene names	-log₁₀(p-value)
Alix	<i>PDCD6IP</i>	4,836
Glycogen phosphorylase, muscle form	<i>PYGM</i>	4,300
Proteasome subunit beta type-1	<i>PSMB1</i>	4,098
Glycogen phosphorylase, liver form	<i>PYGL</i>	4,097
Proteasome subunit alpha type-7	<i>PSMA7</i>	3,984
Proteasome subunit beta type-7	<i>PSMB7</i>	3,752
Asporin	<i>ASPN</i>	3,734
Proteasome subunit alpha type-6	<i>PSMA6</i>	3,695
Proteasome subunit beta type-5	<i>PSMB5</i>	3,652
Homogentisate 1,2-dioxygenase	<i>HGD</i>	3,611
Receptor-type tyrosine-protein phosphatase	<i>PTPRM</i>	3,610
Vacuolar protein sorting-associated protein 28 homolog	<i>VPS28</i>	3,525
Proteasome subunit alpha type-2	<i>PSMA2</i>	3,511
Proteasome subunit alpha type-4	<i>PSMA4</i>	3,460
Proteasome subunit beta type-4	<i>PSMB4</i>	3,443
Cation-independent mannose-6-phosphate receptor	<i>IGF2R</i>	3,377
Eukaryotic initiation factor 4A-II	<i>EIF4A2</i>	3,345
Protein kinase C-binding protein NELL2	<i>NELL2</i>	3,340
3-mercaptopyruvate sulfurtransferase	<i>MPST</i>	3,327
Mannose-1-phosphate guanyltransferase beta	<i>GMPPB</i>	3,264
Cytosolic 10-formyltetrahydrofolate dehydrogenase	<i>ALDH1L1</i>	3,226
Cytoplasmic aconitate hydratase	<i>ACO1</i>	3,172
S-adenosylmethionine synthase isoform type-1	<i>MAT1A</i>	3,097
Delta-aminolevulinic acid dehydratase	<i>ALAD</i>	3,039
Tubulin alpha-4A chain	<i>TUBA4A</i>	3,033
Vacuolar protein sorting-associated protein 37B	<i>VPS37B</i>	3,012
Adenosylhomocysteinase	<i>AHCY</i>	2,989
Regucalcin	<i>RGN</i>	2,989
Fructose-bisphosphate aldolase B	<i>ALDOB</i>	2,989
4-trimethylaminobutyraldehyde dehydrogenase	<i>ALDH9A1</i>	2,960
Microtubule-associated protein RP/EB family member 2	<i>MAPRE2</i>	2,933
Uroporphyrinogen decarboxylase	<i>UROD</i>	2,927
Coronin-1A	<i>CORO1A</i>	2,918
Serine protease 23	<i>PRSS23</i>	2,896
Proteasome subunit beta type-2	<i>PSMB2</i>	2,860
Haptoglobin	<i>HP</i>	2,859
Collagen alpha-3(VI) chain	<i>COL6A3</i>	2,814
Argininosuccinate synthase	<i>ASS1</i>	2,791
Galectin-3-binding protein	<i>LGALS3BP</i>	2,774
von Willebrand factor;von Willebrand antigen 2	<i>VWF</i>	2,736
Lipoprotein lipase	<i>LPL</i>	2,730
Protein MON2 homolog	<i>MON2</i>	2,712
Coagulation factor X	<i>F10</i>	2,700

3-oxo-5-beta-steroid 4-dehydrogenase	<i>AKR1D1</i>	2,696
Proteasome subunit alpha type-5	<i>PSMA5</i>	2,660
Reelin	<i>RELN</i>	2,654
Proteasome subunit alpha type-3	<i>PSMA3</i>	2,636
Prostaglandin reductase 1	<i>PTGR1</i>	2,592
Complement C4-A	<i>C4A;C4B</i>	2,588
Prostamide/prostaglandin F synthase	<i>FAM213B</i>	2,553
Collectin-10	<i>COLEC10</i>	2,547
26S proteasome non-ATPase regulatory subunit 5	<i>PSMD5</i>	2,523
Carbonic anhydrase 2	<i>CA2</i>	2,519
Ferritin heavy chain	<i>FTH1</i>	2,515
COP9 signalosome complex subunit 7b	<i>COPS7B</i>	2,509
Clusterin	<i>CLU</i>	2,506
COP9 signalosome complex subunit 3	<i>COPS3</i>	2,467
Syntenin-1	<i>SDCBP</i>	2,464
Immunoglobulin J chain	<i>IGJ</i>	2,463
Retinal dehydrogenase 1	<i>ALDH1A1</i>	2,440
Ectonucleotide pyrophosphatase/phosphodiesterase family member 2	<i>ENPP2</i>	2,412
Alpha-crystallin B chain	<i>CRYAB</i>	2,407
Integrin-linked protein kinase	<i>ILK</i>	2,402
Ubiquitin thioesterase OTUB1	<i>OTUB1</i>	2,375
Tenascin	<i>TNC</i>	2,365
Neuroserpin	<i>SERPINI1</i>	2,360
Quinone oxidoreductase	<i>CRYZ</i>	2,330
Pro-low-density lipoprotein receptor-related protein 1	<i>LRP1</i>	2,328
Proteasome subunit beta type-6	<i>PSMB6</i>	2,324
Membrane-bound transcription factor site-1 protease	<i>MBTSP1</i>	2,321
Proteasome subunit alpha type-1	<i>PSMA1</i>	2,316
General vesicular transport factor p115	<i>USO1</i>	2,311
Alcohol dehydrogenase class-3	<i>ADH5</i>	2,301
COP9 signalosome complex subunit 4	<i>COPS4</i>	2,294
Sulfotransferase 1C2	<i>SULT1C2</i>	2,293
Thyroglobulin	<i>TG</i>	2,282
Ras-related protein Rab-5B	<i>RAB5B</i>	2,269
Collagen alpha-1(II) chain	<i>COL2A1</i>	2,246
Tetraspanin-14	<i>TSPAN14</i>	2,231
Betaine--homocysteine S-methyltransferase 1	<i>BHMT</i>	2,218
Collagen alpha-2(V) chain	<i>COL5A2</i>	2,204
Thrombospondin-4	<i>THBS4</i>	2,203
Proteasome subunit beta type-3	<i>PSMB3</i>	2,197
Nicotinate-nucleotide pyrophosphorylase [carboxylating]	<i>QPRT</i>	2,184
Golgi membrane protein 1	<i>GOLM1</i>	2,177
Flavin reductase (NADPH)	<i>BLVRB</i>	2,156
26S protease regulatory subunit 6A	<i>PSMC3</i>	2,154
Phenazine biosynthesis-like domain-containing protein	<i>PBLD</i>	2,146
Glycogen phosphorylase, brain form	<i>PYGB</i>	2,135
Galactokinase	<i>GALK1</i>	2,130
Follistatin-related protein 1	<i>FSTL1</i>	2,130

Aflatoxin B1 aldehyde reductase member 4	<i>AKR7L</i>	2,122
Actin-related protein 2/3 complex subunit 1B	<i>ARPC1B</i>	2,120
Ribonucleoside-diphosphate reductase large subunit	<i>RRM1</i>	2,083
Protocadherin Fat 1	<i>FAT1</i>	2,074
Septin-9	<i>09-Sep</i>	2,074
4-hydroxyphenylpyruvate dioxygenase	<i>HPD</i>	2,068
Complement C1q tumor necrosis factor-related protein 3	<i>C1QTNF3</i>	2,056
Vesicular integral-membrane protein VIP36	<i>LMAN2</i>	2,020
Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	<i>PLOD1</i>	1,988
Collagen alpha-1(I) chain	<i>COL1A1</i>	1,949
Fumarylacetoacetate hydrolase domain-containing protein 2A	<i>FAHD2A;FAHD2B</i>	1,929
Ras-related protein Rab-1B	<i>RAB1B</i>	1,910
Dehydrogenase/reductase SDR family member 11	<i>DHRS11</i>	1,893
Collagen alpha-2(I) chain	<i>COL1A2</i>	1,880
GTP-binding nuclear protein Ran	<i>RAN</i>	1,877
Collagen alpha-1(V) chain	<i>COL5A1</i>	1,874
Metalloproteinase inhibitor 2	<i>TIMP2</i>	1,870
Tetraspanin-6	<i>TSPAN6</i>	1,852
Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform	<i>PPP2CA</i>	1,843
Mitogen-activated protein kinase 1	<i>MAPK1</i>	1,822
Endothelial protein C receptor	<i>PROCR</i>	1,815
Isocitrate dehydrogenase [NADP] cytoplasmic	<i>IDH1</i>	1,811
Membrane primary amine oxidase	<i>AOC3</i>	1,810
Low molecular weight phosphotyrosine protein phosphatase	<i>ACP1</i>	1,803
Bone morphogenetic protein 1	<i>BMP1</i>	1,796
60S ribosomal protein L12	<i>RPL12</i>	1,784
Adenosine kinase	<i>ADK</i>	1,783
Beta-parvin	<i>PARVB</i>	1,779
Peroxidasin homolog	<i>PXDN</i>	1,775
Arginase-1	<i>ARG1</i>	1,764
Dihydropyrimidinase	<i>DPYS</i>	1,763
Fibrinogen gamma chain	<i>FGG</i>	1,745
Tetraspanin-9	<i>TSPAN9</i>	1,742
Transforming growth factor beta-1	<i>TGFB1</i>	1,740
Fibrocystin-L	<i>PKHD1L1</i>	1,737
Glutamyl-peptide cyclotransferase	<i>QPCT</i>	1,720
Fumarylacetoacetase	<i>FAH</i>	1,715
Arrestin domain-containing protein 1	<i>ARRDC1</i>	1,706
Probable maltase-glucoamylase-like protein	<i>LOC93432</i>	1,703
V-type proton ATPase catalytic subunit A	<i>ATP6V1A</i>	1,700
Alpha-galactosidase A	<i>GLA</i>	1,698
Probable imidazolonepropionase	<i>AMDHD1</i>	1,690
ProSAAS	<i>PCSK1N</i>	1,685
Cerebellin-4	<i>CBLN4</i>	1,685
Receptor-type tyrosine-protein phosphatase kappa	<i>PTPRK</i>	1,671
Collagen alpha-2(VI) chain	<i>COL6A2</i>	1,671
Lysosomal alpha-mannosidase	<i>MAN2B1</i>	1,666
Cathepsin L2	<i>CTSV</i>	1,659

Glucosamine 6-phosphate N-acetyltransferase	<i>GNPNAT1</i>	1,649
Isopentenyl-diphosphate Delta-isomerase 1	<i>IDI1</i>	1,636
Vesicle-associated membrane protein 2	<i>VAMP2</i>	1,635
cGMP-specific 3,5-cyclic phosphodiesterase	<i>PDE5A</i>	1,630
cAMP-dependent protein kinase type I-alpha regulatory subunit	<i>PRKAR1A</i>	1,624
Acetyl-CoA carboxylase 1	<i>ACACA</i>	1,620
Alpha-mannosidase 2	<i>MAN2A1</i>	1,619
Heat shock protein beta-1	<i>HSPB1</i>	1,616
Extracellular matrix protein FRAS1	<i>FRAS1</i>	1,607
CD63 antigen	CD63	1,589
MMS19 nucleotide excision repair protein homolog	<i>MMS19</i>	1,583
Apolipoprotein C-III	<i>APOC3</i>	1,580
40S ribosomal protein S20	<i>RPS20</i>	1,578
L-xylulose reductase	<i>DCXR</i>	1,556
Fermitin family homolog 3	<i>FERMT3</i>	1,552
Prolyl endopeptidase FAP	<i>FAP</i>	1,545
Estrogen sulfotransferase	<i>SULT1E1</i>	1,544
Sphingomyelin phosphodiesterase	<i>SMPD1</i>	1,538
Ras-related C3 botulinum toxin substrate 2	<i>RAC2</i>	1,536
40S ribosomal protein SA	<i>RPSA</i>	1,529
Sorbitol dehydrogenase	<i>SORD</i>	1,516
Vacuolar protein-sorting-associated protein 25	<i>VPS25</i>	1,496
Protein CutA	<i>CUTA</i>	1,485
26S proteasome non-ATPase regulatory subunit 14	<i>PSMD14</i>	1,483
C-type lectin domain family 11 member A	<i>CLEC11A</i>	1,483
Talin-1	TLN1	1,479
Gelsolin	GSN	1,477
COP9 signalosome complex subunit 2	<i>COPS2</i>	1,474
Putative RNA-binding protein Luc7-like 2	<i>LUC7L2</i>	1,472
40S ribosomal protein S17	<i>RPS17</i>	1,470
CD81 antigen	CD81	1,454
Transmembrane protein 132C	<i>TMEM132C</i>	1,444
Nuclear transport factor 2	<i>NUTF2</i>	1,441
Inositol-3-phosphate synthase 1	<i>ISYNA1</i>	1,428
26S proteasome non-ATPase regulatory subunit 7	<i>PSMD7</i>	1,421
Cochlin	<i>COCH</i>	1,410
ER lumen protein-retaining receptor 1	<i>KDELRL1</i>	1,410
ATP-dependent 6-phosphofructokinase, platelet type	<i>PFKP</i>	1,398
Carboxymethylenebutenolidase homolog	<i>CMBL</i>	1,391
26S proteasome non-ATPase regulatory subunit 11	<i>PSMD11</i>	1,388
Deleted in malignant brain tumors 1 protein	<i>DMBT1</i>	1,387
Pleckstrin homology domain-containing family B member 2	<i>PLEKHB2</i>	1,360
Gamma-glutamyl hydrolase	<i>GGH</i>	1,349
Complement C3	C3	1,344
LIM and senescent cell antigen-like-containing domain protein 1	<i>LIMS1</i>	1,338
Complement C1r subcomponent	<i>C1R</i>	1,324
Desmocollin-3	<i>DSC3</i>	1,321
COP9 signalosome complex subunit 6	<i>COPS6</i>	1,316

26S proteasome non-ATPase regulatory subunit 3	<i>PSMD3</i>	1,312
Bisphosphoglycerate mutase	<i>BPGM</i>	1,301
Galectin-related protein	<i>LGALS1</i>	1,282
Cathepsin Z	<i>CTSZ</i>	1,275
Tetraspanin-7	<i>TSPAN7</i>	1,272
Multiple epidermal growth factor-like domains protein 10	<i>MEGF10</i>	1,242
EMILIN-3	<i>EMILIN3</i>	1,232
Vigilin	<i>HDLBP</i>	1,225
Serine/threonine-protein phosphatase CPPED1	<i>CPPED1</i>	1,189
Collagen alpha-1(XII) chain	<i>COL12A1</i>	1,181
Alpha-2-macroglobulin	<i>A2M</i>	1,112
Ig gamma-4 chain C region	<i>IGHG4</i>	1,089
Cornulin	<i>CRNN</i>	1,037
Hemoglobin subunit beta	<i>HBB</i>	1,016

Supplementary Table 2. List of significantly altered proteins identified in ectosomes. Common proteins (52) in the list of Top 100 proteins often identified in EVs are highlighted in bold (see Supplementary Table 3).

Protein names	Gene names	-log₁₀(p-value)
Band 4.1-like protein 2	<i>EPB41L2</i>	9,852
Band 4.1-like protein 3	<i>EPB41L3</i>	8,468
Plasma membrane calcium-transporting ATPase 1	<i>ATP2B1</i>	7,567
Phosphatidylinositol 4-kinase alpha	<i>PI4KA</i>	7,239
Tubulin-specific chaperone A	<i>TBCA</i>	6,731
Profilin-1	<i>PFN1</i>	6,708
MARCKS-related protein	<i>MARCKSL1</i>	6,644
4F2 cell-surface antigen heavy chain	<i>SLC3A2</i>	6,412
Cytoplasmic FMR1-interacting protein 1	<i>CYFIP1</i>	6,209
Myelin protein zero-like protein 1	<i>MPZL1</i>	6,167
Na(+)/H(+) exchange regulatory cofactor NHE-RF1	<i>SLC9A3R1</i>	6,151
Unconventional myosin-Ic	<i>MYO1C</i>	5,986
Protein scribble homolog	<i>SCRIB</i>	5,985
N(G),N(G)-dimethylarginine dimethylaminohydrolase 1	<i>DDAH1</i>	5,900
2,3-cyclic-nucleotide 3-phosphodiesterase	<i>CNP</i>	5,696
Sodium/potassium-transporting ATPase subunit alpha-1	<i>ATP1A1</i>	5,640
Lethal(2) giant larvae protein homolog 1	<i>LLGL1</i>	5,620
FERM, RhoGEF and pleckstrin domain-containing protein 1	<i>FARP1</i>	5,604
Integrin alpha-5	<i>ITGA5</i>	5,589
Catenin delta-1	<i>CTNND1</i>	5,556
Charged multivesicular body protein 6	<i>CHMP6</i>	5,507
Basigin	<i>BSG</i>	5,349
PDZ domain-containing protein GIPC1	<i>GIPC1</i>	5,304
Plastin-3	<i>PLS3</i>	5,244
Peripheral plasma membrane protein CASK	<i>CASK</i>	5,235
Trifunctional purine biosynthetic protein adenosine-3	<i>GART</i>	5,214
14-3-3 protein epsilon	<i>YWHAE</i>	5,213
Moesin	<i>MSN</i>	5,169

Annexin A6	ANXA6	5,150
Myristoylated alanine-rich C-kinase substrate	MARCKS	5,105
Protein lin-7 homolog C	LIN7C	5,092
Guanine nucleotide-binding protein subunit alpha-13	GNA13	5,054
Ubiquitin-40S ribosomal protein S27a	RPS27A;UBB/C	5,027
Immunoglobulin superfamily member 3	IGSF3	4,988
EGF-like repeat and discoidin I-like domain-containing protein 3	EDIL3	4,974
Sodium/potassium-transporting ATPase subunit beta-1	ATP1B1	4,960
Unconventional myosin-Ib	MYO1B	4,885
WD repeat-containing protein 6	WDR6	4,826
Guanine nucleotide-binding protein G(i) subunit alpha-1	GNAI1	4,814
Inactive tyrosine-protein kinase 7	PTK7	4,790
CD276 antigen	CD276	4,781
Sodium/potassium-transporting ATPase subunit beta-3	ATP1B3	4,738
Catenin beta-1	CTNNB1	4,699
Unconventional myosin-I d	MYO1D	4,582
Calcyclin-binding protein	CACYBP	4,579
Heat shock 70 kDa protein 4	HSPA4	4,550
Guanine nucleotide-binding protein G(l)/G(s)/G(o) subunit gamma-12	GNG12	4,474
Afadin	MLLT4	4,449
Catenin alpha-1	CTNNA1	4,449
Ras-related protein Rab-21	RAB21	4,444
Kinesin-like protein KIF23	KIF23	4,376
A-kinase anchor protein 12	AKAP12	4,302
Complement component 1 Q subcomponent-binding protein	C1QBP	4,296
Peroxiredoxin-1	PRDX1	4,263
Neutral amino acid transporter B(0)	SLC1A5	4,221
Fatty acid synthase	FASN	4,138
Pachytene checkpoint protein 2 homolog	TRIP13	4,113
Radixin	RDX	4,089
Phospholipid-transporting ATPase IG	ATP11C	4,077
Guanine nucleotide-binding protein G(s) subunit alpha isoforms	GNAS	4,055
Nck-associated protein 1	NCKAP1	4,054
C-1-tetrahydrofolate synthase	MTHFD1	4,019
Disks large homolog 1	DLG1	4,010
Glutathione S-transferase P	GSTP1	4,008
Creatine kinase B-type	CKB	4,007
Ectonucleotide pyrophosphatase/phosphodiesterase family member 1	ENPP1	3,995
Collagen alpha-1(XVIII) chain	COL18A1	3,995
Integrin alpha-1	ITGA1	3,987
14-3-3 protein beta/alpha	YWHA B	3,953
Cyclin-dependent kinase 1	CDK1	3,950
Zinc transporter ZIP6	SLC39A6	3,947
Microtubule-associated protein RP/EB family member 1	MAPRE1	3,914
Large neutral amino acids transporter small subunit 1	SLC7A5	3,865
Translation initiation factor eIF-2B subunit alpha	EIF2B1	3,790
Monocarboxylate transporter 1	SLC16A1	3,788
14-3-3 protein theta	YWHA Q	3,784

Ras GTPase-activating-like protein	<i>IQGAP1</i>	3,751
14-3-3 protein eta	<i>YWHAH</i>	3,743
Peroxiredoxin-6	<i>PRDX6</i>	3,729
Cytoplasmic FMR1-interacting protein 2	<i>CYFIP2</i>	3,687
Kinesin-1 heavy chain	<i>KIF5B</i>	3,680
Nicastrin	<i>NCSTN</i>	3,677
Guanine nucleotide-binding protein G(k) subunit alpha	<i>GNAI3</i>	3,644
Annexin A2	<i>ANXA2</i>	3,628
dCTP pyrophosphatase 1	<i>DCTPP1</i>	3,580
Integrin beta-1	<i>ITGB1</i>	3,579
DnaJ homolog subfamily C member 5	<i>DNAJC5</i>	3,575
Four and a half LIM domains protein 1	<i>FHL1</i>	3,567
Actin, cytoplasmic 2	<i>ACTG1</i>	3,555
Endoplasmic	<i>HSP90B1</i>	3,554
BolA-like protein 2	<i>BOLA2</i>	3,550
Purine nucleoside phosphorylase	<i>PNP</i>	3,538
Basement membrane-specific heparan sulfate proteoglycan core protein	<i>HSPG2</i>	3,487
Receptor-type tyrosine-protein phosphatase F	<i>PTPRF</i>	3,433
D-3-phosphoglycerate dehydrogenase	<i>PHGDH</i>	3,433
Protein unc-45 homolog A	<i>UNC45A</i>	3,432
Insulin receptor substrate 4	<i>IRS4</i>	3,430
Guanine nucleotide-binding protein G(i) subunit alpha-2	<i>GNAI2</i>	3,417
Brain acid soluble protein 1	<i>BASP1</i>	3,383
Ezrin	<i>EZR</i>	3,375
Cofilin-2	<i>CFL2</i>	3,371
10 kDa heat shock protein, mitochondrial	<i>HSPE1</i>	3,363
Protein NDRG1	<i>NDRG1</i>	3,352
Coxsackievirus and adenovirus receptor	<i>CXADR</i>	3,347
Poly(rC)-binding protein 2	<i>PCBP2</i>	3,321
Ubiquitin carboxyl-terminal hydrolase isozyme L1	<i>UCHL1</i>	3,321
Guanine nucleotide-binding protein subunit alpha-11	<i>GNA11</i>	3,303
Heat shock protein HSP 90-beta	<i>HSP90AB1</i>	3,294
Heat shock protein 105 kDa	<i>HSPH1</i>	3,259
Ras-related protein Rab-10	<i>RAB10</i>	3,255
GTP-binding protein Rheb	<i>RHEB</i>	3,252
Protein XRP2	<i>RP2</i>	3,245
Equilibrative nucleoside transporter 1	<i>SLC29A1</i>	3,219
Protein unc-13 homolog D	<i>UNC13D</i>	3,212
14-3-3 protein zeta/delta	<i>YWHAZ</i>	3,209
Poly(rC)-binding protein 1	<i>PCBP1</i>	3,208
Ephrin type-A receptor 2	<i>EPHA2</i>	3,206
Plexin-A1	<i>PLXNA1</i>	3,205
Heat shock 70 kDa protein 1B;Heat shock 70 kDa protein 1A	<i>HSPA1B;HSPA1A</i>	3,197
Hypoxanthine-guanine phosphoribosyltransferase	<i>HPRT1</i>	3,188
Programmed cell death protein 5	<i>PDCD5</i>	3,183
T-complex protein 1 subunit alpha	<i>TCP1</i>	3,167
Annexin A1	<i>ANXA1</i>	3,162
Prohibitin	<i>PHB</i>	3,152

Chloride intracellular channel protein 4	<i>CLIC4</i>	3,144
Leucine-rich repeat-containing protein 57	<i>LRRC57</i>	3,142
Neurogenic locus notch homolog protein 2	<i>NOTCH2</i>	3,139
Ras-related protein Rab-7a	<i>RAB7A</i>	3,137
Junctional adhesion molecule C	<i>JAM3</i>	3,108
Nidogen-2	<i>NID2</i>	3,103
Small VCP/p97-interacting protein	<i>SVIP</i>	3,093
MOB kinase activator 1A;MOB kinase activator 1B	<i>MOB1A;MOB1B</i>	3,090
Inorganic pyrophosphatase	<i>PPA1</i>	3,088
Ras-related protein Rab-23	<i>RAB23</i>	3,071
Zinc finger CCCH-type antiviral protein 1	<i>ZC3HAV1</i>	3,039
HLA class I histocompatibility antigen, A-2 alpha chain	<i>HLA-A</i>	3,034
Glypican-4;Secreted glypican-4	<i>GPC4</i>	3,033
Phosphoribosylformylglycinamide synthase	<i>PFAS</i>	2,977
L-lactate dehydrogenase A chain	<i>LDHA</i>	2,965
T-complex protein 1 subunit epsilon	<i>CCT5</i>	2,944
Single-stranded DNA-binding protein, mitochondrial	<i>SSBP1</i>	2,938
HLA class I histocompatibility antigen, B-7 alpha chain	<i>HLA-B</i>	2,909
Syntaxin-4	<i>STX4</i>	2,907
Integrin alpha-V	<i>ITGAV</i>	2,885
Synaptosomal-associated protein 23	<i>SNAP23</i>	2,884
Fascin	<i>FSCN1</i>	2,883
Peroxiredoxin-2	<i>PRDX2</i>	2,876
14-3-3 protein gamma	<i>YWHAQ</i>	2,874
Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1	<i>GNB1</i>	2,860
Rho GDP-dissociation inhibitor 1	<i>ARHGDI1</i>	2,851
Copine-3	<i>CPNE3</i>	2,845
Triosephosphate isomerase	<i>TPI1</i>	2,842
ADP-sugar pyrophosphatase	<i>NUDT5</i>	2,839
Solute carrier family 12 member 2	<i>SLC12A2</i>	2,802
Elongation factor 1-alpha 1;Putative elongation factor 1-alpha-like 3	<i>EEF1A1;EEF1A1 P5</i>	2,761
Synaptic vesicle membrane protein VAT-1 homolog	<i>VAT1</i>	2,731
T-complex protein 1 subunit eta	<i>CCT7</i>	2,729
T-complex protein 1 subunit zeta	<i>CCT6A</i>	2,728
Serine/threonine-protein kinase MRCK beta	<i>CDC42BPB</i>	2,699
Multifunctional protein ADE2	<i>PAICS</i>	2,688
Protein FAM49B	<i>FAM49B</i>	2,686
Ras-related protein Rab-5C	<i>RAB5C</i>	2,680
Receptor-type tyrosine-protein phosphatase gamma	<i>PTPRG</i>	2,677
Myosin light polypeptide 6	<i>MYL6</i>	2,673
Destrin	<i>DSTN</i>	2,673
Fibronectin	<i>FN1</i>	2,672
Gap junction alpha-1 protein	<i>GJA1</i>	2,665
LIM and SH3 domain protein 1	<i>LASP1</i>	2,647
Aspartate aminotransferase, cytoplasmic	<i>GOT1</i>	2,643
CTP synthase 1	<i>CTPS1</i>	2,640
Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	<i>GNB2</i>	2,631

Collagen alpha-1(IV) chain	<i>COL4A1</i>	2,630
Ras-related protein Rab-8B	<i>RAB8B</i>	2,629
Elongation factor 1-delta	<i>EEF1D</i>	2,609
T-complex protein 1 subunit delta	<i>CCT4</i>	2,597
Serine/threonine-protein kinase 26	<i>STK26</i>	2,584
60 kDa heat shock protein, mitochondrial	<i>HSPD1</i>	2,582
Integrin alpha-2	<i>ITGA2</i>	2,567
Disks large homolog 3	<i>DLG3</i>	2,562
Calcineurin B homologous protein 1	<i>CHP1</i>	2,549
Ras-related protein Rab-35	<i>RAB35</i>	2,518
Protein disulfide-isomerase A6	<i>PDIA6</i>	2,517
Ras-related protein Ral-A	<i>RALA</i>	2,509
Elongation factor 1-beta	<i>EEF1B2</i>	2,506
Nuclear migration protein nudC	<i>NUDC</i>	2,505
Mitogen-activated protein kinase kinase kinase kinase 4	<i>MAP4K4</i>	2,487
Choline transporter-like protein 2	<i>SLC44A2</i>	2,486
Insulin-like growth factor 1 receptor	<i>IGF1R</i>	2,486
Glyceraldehyde-3-phosphate dehydrogenase	<i>GAPDH</i>	2,478
Ras-related protein R-Ras2	<i>RRAS2</i>	2,478
Protein deglycase DJ-1	<i>PARK7</i>	2,444
Coatomer subunit alpha;Xenin;Proxenin	<i>COPA</i>	2,433
Importin subunit beta-1	<i>KPNB1</i>	2,432
T-complex protein 1 subunit beta	<i>CCT2</i>	2,423
Ras GTPase-activating protein 3	<i>RASA3</i>	2,405
Importin-4	<i>IPO4</i>	2,393
Presenilin-1	<i>PSEN1</i>	2,393
2-deoxynucleoside 5-phosphate N-hydrolase 1	<i>DNPH1</i>	2,385
Prohibitin-2	<i>PHB2</i>	2,378
Heat shock protein HSP 90-alpha	<i>HSP90AA1</i>	2,376
Elongation factor Tu, mitochondrial	<i>TUFM</i>	2,363
Glycine-tRNA ligase	<i>GARS</i>	2,356
GTPase HRas	<i>HRAS</i>	2,355
Pyruvate kinase PKM	<i>PKM</i>	2,355
Guanine nucleotide-binding protein G(o) subunit alpha	<i>GNAO1</i>	2,351
Rac GTPase-activating protein 1	<i>RACGAP1</i>	2,343
ATP-dependent RNA helicase DDX3X/ DDX3Y	<i>DDX3X;DDX3Y</i>	2,341
Zinc transporter ZIP14	<i>SLC39A14</i>	2,336
Sorting nexin-5	<i>SNX5</i>	2,330
Ubiquitin-conjugating enzyme E2 K	<i>UBE2K</i>	2,325
Thioredoxin domain-containing protein 17	<i>TXNDC17</i>	2,317
Cofilin-1	<i>CFL1</i>	2,313
Heterogeneous nuclear ribonucleoprotein A3	<i>HNRNPA3</i>	2,310
DNA topoisomerase 2-alpha	<i>TOP2A</i>	2,308
Calcium-binding protein 39	<i>CAB39</i>	2,290
Collagen alpha-2(IV) chain;Canstatin	<i>COL4A2</i>	2,285
Lactoylglutathione lyase	<i>GLO1</i>	2,281
Rho-associated protein kinase 1	<i>ROCK1</i>	2,271
Centrosomal protein of 55 kDa	<i>CEP55</i>	2,268

Nucleoside diphosphate kinase B;Putative nucleoside diphosphate kinase	<i>NME2;NME2P1</i>	2,255
Ras-related C3 botulinum toxin substrate 1	<i>RAC1</i>	2,246
Neuropilin-1	<i>NRP1</i>	2,227
Phosphatidylethanolamine-binding protein 1; Hippocampal cholinergic neurostimulating peptide	<i>PEBP1</i>	2,217
Integrin alpha-6	<i>ITGA6</i>	2,203
Protein kinase C beta type	<i>PRKCB</i>	2,196
Fatty acid-binding protein, epidermal	<i>FABP5</i>	2,190
T-complex protein 1 subunit theta	<i>CCT8</i>	2,180
Endophilin-B1	<i>SH3GLB1</i>	2,168
AP-2 complex subunit beta	<i>AP2B1</i>	2,147
Melanoma-associated antigen D2	<i>MAGED2</i>	2,127
Stathmin	<i>STMN1</i>	2,123
Annexin A3	<i>ANXA3</i>	2,100
Fructose-bisphosphate aldolase A	<i>ALDOA</i>	2,100
Heat shock cognate 71 kDa protein	<i>HSPA8</i>	2,096
Alpha-enolase	<i>ENO1</i>	2,093
Guanine nucleotide-binding protein G(q) subunit alpha	<i>GNAQ</i>	2,090
Phosphatidylinositol transfer protein beta isoform	<i>PITPNB</i>	2,089
Junction plakoglobin	<i>JUP</i>	2,075
Filamin-B	<i>FLNB</i>	2,072
Golgin subfamily A member 7	<i>GOLGA7</i>	2,071
Programmed cell death protein 10	<i>PDCD10</i>	2,062
Neuroblast differentiation-associated protein AHNAK	<i>AHNAK</i>	2,045
Puromycin-sensitive aminopeptidase	<i>NPEPPS</i>	2,044
Lysyl oxidase homolog 2	<i>LOXL2</i>	2,043
Transgelin-2	<i>TAGLN2</i>	2,032
Anosmin-1	<i>KAL1</i>	2,029
Cyclin-Y	<i>CCNY</i>	2,016
Laminin subunit alpha-5	<i>LAMA5</i>	2,015
Nucleoside diphosphate kinase A	<i>NME1</i>	2,011
Rho-related GTP-binding protein RhoG	<i>RHOG</i>	2,008
Serine/threonine-protein kinase TAO1	<i>TAOK1</i>	1,998
Proliferating cell nuclear antigen	<i>PCNA</i>	1,991
BTB/POZ domain-containing protein KCTD12	<i>KCTD12</i>	1,977
Staphylococcal nuclease domain-containing protein 1	<i>SND1</i>	1,963
CD59 glycoprotein	<i>CD59</i>	1,961
Junctional adhesion molecule A	<i>F11R</i>	1,959
Annexin A5	<i>ANXA5</i>	1,957
Protein NDNF	<i>NDNF</i>	1,956
NADH-cytochrome b5 reductase 3	<i>CYB5R3</i>	1,953
Ras-related protein Rab-13	<i>RAB13</i>	1,943
Occludin	<i>OCLN</i>	1,938
Glypican-6;Secreted glypican-6	<i>GPC6</i>	1,933
CAD protein	<i>CAD</i>	1,909
Lysosome-associated membrane glycoprotein 1	<i>LAMP1</i>	1,899
Protein-L-isoaspartate(D-aspartate) O-methyltransferase	<i>PCMT1</i>	1,898
Activator of 90 kDa heat shock protein ATPase homolog 1	<i>AHSA1</i>	1,886

Fermitin family homolog 2	<i>FERMT2</i>	1,875
Band 4.1-like protein 5	<i>EPB41L5</i>	1,870
STE20-like serine/threonine-protein kinase	<i>SLK</i>	1,869
Stress-70 protein, mitochondrial	<i>HSPA9</i>	1,863
DnaJ homolog subfamily B member 1	<i>DNAJB1</i>	1,858
Malate dehydrogenase, mitochondrial	<i>MDH2</i>	1,847
Protein EFR3 homolog A	<i>EFR3A</i>	1,842
ATP synthase subunit alpha, mitochondrial	<i>ATP5A1</i>	1,827
Agrin	<i>AGRN</i>	1,821
Voltage-dependent anion-selective channel protein 2	<i>VDAC2</i>	1,821
Hsc70-interacting protein	<i>ST13</i>	1,816
F-actin-capping protein subunit beta	<i>CAPZB</i>	1,810
POTE ankyrin domain family member E / F	<i>POTEE;POTEF</i>	1,798
Gamma-aminobutyric acid receptor-associated protein-like 2	<i>GABARAPL2</i>	1,775
Teneurin-3	<i>TENM3</i>	1,767
Histone H1.0	<i>H1FO</i>	1,727
Ubiquitin-like modifier-activating enzyme 1	<i>UBA1</i>	1,726
Eukaryotic translation initiation factor 2 subunit 1	<i>EIF2S1</i>	1,722
Desmoglein-2	<i>DSG2</i>	1,721
Elongation factor 2	<i>EEF2</i>	1,717
GTPase NRas	<i>NRAS</i>	1,710
ATP synthase subunit beta, mitochondrial	<i>ATP5B</i>	1,708
Aspartate--tRNA ligase, cytoplasmic	<i>DARS</i>	1,700
E3 ubiquitin-protein ligase CHIP	<i>STUB1</i>	1,697
Developmentally-regulated GTP-binding protein 1	<i>DRG1</i>	1,697
Protein-glutamine gamma-glutamyltransferase E	<i>TGM3</i>	1,692
Tyrosine-protein kinase Lyn	<i>LYN</i>	1,668
Clathrin heavy chain 1	<i>CLTC</i>	1,666
Epidermal growth factor receptor	<i>EGFR</i>	1,664
Serine/threonine-protein phosphatase PP1-alpha catalytic subunit	<i>PPP1CA</i>	1,663
Thioredoxin-dependent peroxide reductase, mitochondrial	<i>PRDX3</i>	1,658
Malate dehydrogenase, cytoplasmic	<i>MDH1</i>	1,655
Syntaxin-7	<i>STX7</i>	1,638
Inosine-5-monophosphate dehydrogenase 2	<i>IMPDH2</i>	1,635
Ran-specific GTPase-activating protein	<i>RANBP1</i>	1,630
78 kDa glucose-regulated protein	<i>HSPA5</i>	1,628
Cell division control protein 42 homolog	<i>CDC42</i>	1,607
DnaJ homolog subfamily A member 2	<i>DNAJA2</i>	1,605
L-lactate dehydrogenase B chain	<i>LDHB</i>	1,599
ADP/ATP translocase 2	<i>SLC25A5</i>	1,585
Profilin-2	<i>PFN2</i>	1,580
Phosphatidylinositol 5-phosphate 4-kinase type-2 alpha	<i>PIP4K2A</i>	1,580
Alanine--tRNA ligase, cytoplasmic	<i>AARS</i>	1,560
D-dopachrome decarboxylase;D-dopachrome decarboxylase-like protein	<i>DDT;DDTL</i>	1,555
Protein 4.1	<i>EPB41</i>	1,553
Histone H2B type 1-C/E/F/G/I	<i>HIST1H2BC</i>	1,537
Long-chain-fatty-acid--CoA ligase 4	<i>ACSL4</i>	1,535
Rab GDP dissociation inhibitor beta	<i>GDI2</i>	1,524

Phosphoribosyl pyrophosphate synthase-associated protein 2	<i>PRPSAP2</i>	1,523
Ras-related protein Rap-2b	<i>RAP2B</i>	1,517
Choline transporter-like protein 1	<i>SLC44A1</i>	1,516
NudC domain-containing protein 2	<i>NUDCD2</i>	1,513
Plasma membrane calcium-transporting ATPase 4	<i>ATP2B4</i>	1,504
Ras-related protein Rab-8A	<i>RAB8A</i>	1,503
Axin interactor, dorsalization-associated protein	<i>AIDA</i>	1,492
High affinity cationic amino acid transporter 1	<i>SLC7A1</i>	1,492
N-alpha-acetyltransferase 15, NatA auxiliary subunit	<i>NAA15</i>	1,488
Histone H1.4	<i>HIST1H1E</i>	1,469
Translational activator GCN1	<i>GCN1L1</i>	1,462
Caspase-3;Caspase-3 subunit p17;Caspase-3 subunit p12	<i>CASP3</i>	1,458
Proliferation-associated protein 2G4	<i>PA2G4</i>	1,458
Histone H2A type 1C;Histone H2A type 3;Histone H2A type 1-B/E	<i>HIST1H2AC;HIST3H2A;HIST1H2AB</i>	1,454
Eukaryotic peptide chain release factor subunit 1	<i>ETF1</i>	1,436
Ephrin type-A receptor 7	<i>EPHA7</i>	1,434
AP-2 complex subunit mu	<i>AP2M1</i>	1,407
Raftlin	<i>RFTN1</i>	1,400
ADP-ribosylation factor 6	<i>ARF6</i>	1,400
Macrophage migration inhibitory factor	<i>MIF</i>	1,392
Na(+)/H(+) exchange regulatory cofactor NHE-RF2	<i>SLC9A3R2</i>	1,391
Unconventional myosin-X	<i>MYO10</i>	1,386
Aldose reductase	<i>AKR1B1</i>	1,384
Ubiquitin-conjugating enzyme E2 L3	<i>UBE2L3</i>	1,381
Synaptobrevin homolog YKT6	<i>YKT6</i>	1,379
Transaldolase	<i>TALDO1</i>	1,377
Ras-related protein Ral-B	<i>RALB</i>	1,377
Barrier-to-autointegration factor	<i>BANF1</i>	1,373
Nidogen-1	<i>NID1</i>	1,361
Protein kinase C and casein kinase substrate in neurons protein 3	<i>PACSIN3</i>	1,360
V-type proton ATPase 116 kDa subunit a isoform 1	<i>ATP6V0A1</i>	1,345
Tubulin beta chain	<i>TUBB</i>	1,343
Protein S100-A10	<i>S100A10</i>	1,340
Ribose-phosphate pyrophosphokinase 1	<i>PRPS1</i>	1,337
Adenine phosphoribosyltransferase	<i>APRT</i>	1,333
Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-10	<i>GNG10</i>	1,333
von Willebrand factor A domain-containing protein 1	<i>VWA1</i>	1,328
Arginine--tRNA ligase, cytoplasmic	<i>RARS</i>	1,308
Pre-mRNA-processing-splicing factor 8	<i>PRPF8</i>	1,298
Polyadenylate-binding protein 1;Polyadenylate-binding protein 3	<i>PABPC1;PABPC3</i>	1,286
Prefoldin subunit 2	<i>PFDN2</i>	1,286
Syntaxin-3	<i>STX3</i>	1,282
Vesicle-associated membrane protein 3	<i>VAMP3</i>	1,276
Astrocytic phosphoprotein PEA-15	<i>PEA15</i>	1,276
Cysteine and histidine-rich domain-containing protein 1	<i>CHORDC1</i>	1,275
Histone H2A type 2-C;Histone H2A type 2-A	<i>HIST2H2AC;HIST2H2AA3</i>	1,251

Vimentin	<i>VIM</i>	1,249
ATP-binding cassette sub-family E member 1	<i>ABCE1</i>	1,243
Filamin-C	<i>FLNC</i>	1,234
Syndecan-2	<i>SDC2</i>	1,224
Disco-interacting protein 2 homolog B	<i>DIP2B</i>	1,211
Calnexin	<i>CANX</i>	1,201
Heterogeneous nuclear ribonucleoprotein U	<i>HNRNPU</i>	1,192
Probable ATP-dependent RNA helicase DDX5	<i>DDX5</i>	1,176
DNA damage-binding protein 1	<i>DDB1</i>	1,170
40S ribosomal protein S23	<i>RPS23</i>	1,166
Protein disulfide-isomerase A4	<i>PDIA4</i>	1,165
Poly [ADP-ribose] polymerase 1	<i>PARP1</i>	1,114

Supplementary Table 3. Table of the Top 100 proteins often identified in EVs (source: vesiclepedia, [http://microvesicles.org/extracellular vesicle markers](http://microvesicles.org/extracellular_vesicle_markers)).

GENE	NUMBER OF TIMES IDENTIFIED
<i>PDCD6IP</i>	399
<i>GAPDH</i>	377
<i>HSPA8</i>	363
<i>ACTB</i>	350
<i>ANXA2</i>	337
<i>CD9</i>	328
<i>PKM</i>	327
<i>HSP90AA1</i>	327
<i>ENO1</i>	327
<i>ANXA5</i>	313
<i>HSP90AB1</i>	306
<i>CD63</i>	306
<i>YWHAZ</i>	301
<i>YWHAE</i>	300
<i>EEF1A1</i>	295
<i>PGK1</i>	291
<i>CLTC</i>	283
<i>PPIA</i>	278
<i>SDCBP</i>	277
<i>ALDOA</i>	275
<i>EEF2</i>	274
<i>ALB</i>	274
<i>TPI1</i>	270
<i>VCP</i>	269
<i>CFL1</i>	268
<i>MSN</i>	266
<i>ATP1A1</i>	266
<i>PRDX1</i>	263
<i>MYH9</i>	262
<i>EZR</i>	262
<i>CD81</i>	262
<i>ANXA6</i>	260
<i>FLOT1</i>	259

YWHAB	258
LDHB	258
SLC3A2	257
GNB1	257
PFN1	256
TSG101	255
YWHAQ	254
GNAI2	252
CLIC1	251
ANXA1	251
ITGB1	250
LDHA	249
FASN	248
CDC42	248
RAP1B	242
CCT2	242
YWHAG	240
GNB2	240
ACTN4	240
RAB5C	239
C3	239
RAB10	236
HIST1H4A	234
KRT1	233
FN1	233
AHCY	233
A2M	232
BSG	230
ACTN1	229
ANXA7	228
ACLY	228
HIST1H4B	227
GDI2	227
FLNA	227
UBA1	226
GNAS	226
GSN	225
CCT4	225
RAN	222
PRDX2	222
RHOA	220
CCT3	220
RAC1	219
LGALS3BP	219
TCP1	218
KRT10	218
CAP1	218
RAB7A	217
TUBB4B	216
HSPA5	215
IQGAP1	214

<i>GPI</i>	214
<i>RALA</i>	213
<i>KPNB1</i>	212
<i>HIST1H4I</i>	212
<i>TFRC</i>	211
<i>EIF4A1</i>	211
<i>HIST4H4</i>	210
<i>CCT8</i>	210
<i>TLN1</i>	209
<i>HIST1H4K</i>	209
<i>HIST1H4H</i>	209
<i>CCT6A</i>	209
<i>ANXA11</i>	209
<i>HIST1H4J</i>	208
<i>HIST1H4F</i>	208
<i>HIST1H4D</i>	208