



Supplementary Figure 1.

(A) Additional transmission electron microscopy images of exosomes isolated by differential ultracentrifugation from Jurkat T cells treated with media alone, human serum albumin, or anti-CD3/28 antibodies overnight. White arrows indicate exosome, bar 200 nm. (B) Exosomes collected from activated or resting Jurkat T cells were labeled with Annexin V-PE and analyzed by flow cytometry. (C) Exosomes were scored for Annexin V positivity after gating according to forward and side scattering. (D) Venn diagram showing the numbers of proteins detected at each experimental condition.

Supplementary table 1. Proteins that their levels were unchanged in exosomes derived from resting compared to activated T cells.

Protein	Description	P-value
CD81	CD81 antigen	0.3739
CD47	Leukocyte surface antigen CD47	0.3344
ADA	Adenosine deaminase	0.0575
LCK	Tyrosine-protein kinase Lck	0.3634
RAN	GTP-binding nuclear protein Ran	0.3924
RAB10	Ras-related protein Rab-10	0.4889
ANXA1	Annexin A1	0.3845
ATP1A1	Sodium/potassium-transporting ATPase subunit alpha-1	0.4036
CCT2	T-complex protein 1 subunit beta	0.5201
BANF1	Barrier-to-autointegration factor	0.3591
ALDOA	Fructose-bisphosphate aldolase A	0.4003
ANO6	Anoctamin-6	0.5187
CD99	CD99 antigen	0.3739
CDC42	Cell division control protein 42 homolog	0.9814
EEF2	Elongation factor 2	0.3635
DOCK2	Dedicator of cytokinesis protein 2	0.9527
EZR	Ezrin	0.3628
DIP2B	Disco-interacting protein 2 homolog B	0.5167
HLA-B	HLA class I histocompatibility antigen B	0.8544
HIST1H1B	Histone H1.5	0.9775
GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	0.9791
FKBP4	Peptidyl-prolyl cis-trans isomerase FKBP4	0.3727
ITGA4	Integrin alpha-4	0.1161
ITK	Tyrosine-protein kinase ITK/TSK	0.0677
LDHA	L-lactate dehydrogenase A chain	0.3723
MAP4K4	Mitogen-activated protein kinase kinase kinase 4	0.9958
MYL6	Myosin light polypeptide 6	0.5110
PPIA	Peptidyl-prolyl cis-trans isomerase A	0.3662
TUBB	Tubulin beta chain	0.3739
YWHAE	14-3-3 protein epsilon	0.1451
UBB	Polyubiquitin-B	0.3432
RPS7	40S ribosomal protein S7	0.3470
PHGDH	D-3-phosphoglycerate dehydrogenase	0.9910
MSN	Moesin	0.9980
ACTA1	Actin	0.4170
CCT7	T-complex protein 1 subunit eta	0.2407
CD2	T-cell surface antigen CD2	0.4101
CD38	ADP-ribosyl cyclase 1	0.3834
CSE1L	Exportin-2	0.9898
ENO1	Alpha-enolase	0.3928
CNP	2,3-cyclic-nucleotide 3-phosphodiesterase	0.5048
GNB1	Guanine nucleotide-binding protein G subunit beta-1	0.2372
IGSF8	Immunoglobulin superfamily member 8	0.5213
NME2	Nucleoside diphosphate kinase B	0.0369
SPN	Leukosialin	0.3726
TPM3	Tropomyosin alpha-3 chain	0.3819
PKM	Pyruvate kinase PKM	0.4074
RPS2	40S ribosomal protein S2	0.37502458
PFN1	Profilin-1	0.379370394
HSP90AB1	Heat shock protein HSP 90-beta	0.373900966
MDH2	Malate dehydrogenase	0.116128428
SLC1A4	Neutral amino acid transporter A	0.623795308
CFL1	Cofilin-1	0.404425711
BSG	Basigin	0.986501525
CALM1	Calmodulin	0.388383993
RAC2	Ras-related C3 botulinum toxin substrate 2	0.996177413
PGK1	Phosphoglycerate kinase 1	0.522329037
RPL15	60S ribosomal protein L15	0.380271423

Supplementary table 2. Proteins that their levels were higher in exosomes derived from activated T cells.

Protein	Description	P-value
RRAS2	Ras-related protein R-Ras2	0.0231
ABI1	Abl interactor 1	0.0127
RAF1	RAF proto-oncogene serine/threonine-protein kinase	0.0000
CSNK1G2	Casein kinase I isoform gamma-2	0.0051
PRMT5	Protein arginine N-methyltransferase 5	0.0112
DOCK10	Dedicator of cytokinesis protein 10	0.0113
PRKCH	Protein kinase C eta type	0.0016
LAT	Linker for activation of T-cells family member 1	0.0021
GAS7	Growth arrest-specific protein 7	0.0134
ATP6V1A	V-type proton ATPase catalytic subunit A	0.0150
RPS3A	40S ribosomal protein S3a	0.0027
HNRNPH1	Heterogeneous nuclear ribonucleoprotein H	0.0150
HNRNPL	Heterogeneous nuclear ribonucleoprotein L	0.0066
NRAS	GTPase KRas N-terminally processed	0.0129
NCSTN	Nicastrin	0.0072
CYFIP2	Cytoplasmic FMR1-interacting protein 2	0.0032
PIP4K2B	Phosphatidylinositol 5-phosphate 4-kinase type-2 beta	0.0052
NPTN	Neuroplastin	0.0095
BRK1	Protein BRICK1	0.0146
SRP68	Signal recognition particle subunit SRP68	0.0022
SLC16A7	Monocarboxylate transporter 2	0.0001
DDX3X	ATP-dependent RNA helicase DDX3X	0.0119
ARPC2	Actin-related protein 2/3 complex subunit 2	0.0060
AHSA1	Activator of 90 kDa heat shock protein ATPase homolog 1	0.0095
HLA-A	HLA class I histocompatibility antigen,	0.0074
EIF2S1	Eukaryotic translation initiation factor 2 subunit 1	0.0183
PRKCB	Protein kinase C beta type	0.0006
TROVE2	60 kDa SS-A/Ro ribonucleoprotein	0.0051
PRKCA	Protein kinase C alpha type	0.0006
ATP6V1B2	V-type proton ATPase subunit B, brain isoform	0.0194
EEF1B2	Elongation factor 1-beta	0.0341
RPL13	60S ribosomal protein L13	0.0117
PTBP1	Polypyrimidine tract-binding protein 1	0.0198
PSMC2	26S protease regulatory subunit 7	0.0082
CCT6A	T-complex protein 1 subunit zeta	0.0057
EIF2S3	Eukaryotic translation initiation factor 2 subunit 3	0.0005
RPL5	60S ribosomal protein L5	0.0260
CCT5	T-complex protein 1 subunit epsilon	0.0011
NCKAP1L	Nck-associated protein 1-like	0.0067
RPS18	40S ribosomal protein S18	0.0046
CDK5	Cyclin-dependent kinase 5	0.0042
PRKCQ	Protein kinase C theta type	0.0146
PRKCD	Protein kinase C delta	0.0003
PSMD2	26S proteasome non-ATPase regulatory subunit 2	0.0026
EIF3I	Eukaryotic translation initiation factor 3 subunit I	0.0146
GNA13	Guanine nucleotide-binding protein subunit alpha-13	0.0135
RFTN1	Raftlin	0.0016
PTPRCAP	Protein tyrosine phosphatase receptor type C-associated protein	0.0148
PCBP1	Poly(rC)-binding protein 1	0.0114
PA2G4	Proliferation-associated protein 2G4	0.0084
TBC1D10B	TBC1 domain family member 10B	0.0063
CYFIP1	Cytoplasmic FMR1-interacting protein 1	0.0168
APBB1IP	Amyloid beta A4 precursor protein-binding family B member 1-interacting protein	0.0378
ELMO1	Engulfment and cell motility protein 1	0.0007
TAOK3	Serine/threonine-protein kinase TAO3	0.0241
UNC45A	Protein unc-45 homolog A	0.0222
DEF6	Differentially expressed in FDCP 6 homolog	0.0002
IL1RAP	Interleukin-1 receptor accessory protein	0.0225
LNPEP	Leucyl-cystinyl aminopeptidase	0.0404

Supplementary table 3. Proteins that their levels were higher in exosome derived from resting T cells.

Protein	Description	P-value
CD3G	T-cell surface glycoprotein CD3 gamma chain	0.0046
KIF20A	Kinesin-like protein KIF20A	0.0020
FLOT2	Flotillin-2	0.0266
SEPT7	Septin-7	0.0171
VTA1	Vacuolar protein sorting-associated protein VTA1 homolog	0.0047
KIF2A	Kinesin-like protein KIF2A	0.0027
PELI2	E3 ubiquitin-protein ligase pellino homolog 2	0.0038
SH3KBP1	SH3 domain-containing kinase-binding protein 1	0.0197
ARL8B	ADP-ribosylation factor-like protein 8B	0.0039
PRC1	Protein regulator of cytokinesis 1	0.0012
CTNNA1	Catenin alpha-1	0.0129
SDCBP	Syntenin-1	0.0195
CIT	Citron Rho-interacting kinase	0.0118
SLC9A3R1	Na(+)/H(+) exchange regulatory cofactor NHE-RF1	0.0295
VPS4B	Vacuolar protein sorting-associated protein 4B	0.0011
KIF4A	Chromosome-associated kinesin KIF4A	0.0046
FMNL1	Formin-like protein 1	0.0025
FLNA	Filamin-A	0.0140
CXCR4	C-X-C chemokine receptor type 4	0.0152
NEDD4	E3 ubiquitin-protein ligase NEDD4	0.0074
UBASH3A	Ubiquitin-associated and SH3 domain-containing protein A	0.0013
MPP1	55 kDa erythrocyte membrane protein	0.0112
KIF23	Kinesin-like protein KIF23	0.0141
KIF14	Kinesin-like protein KIF14	0.0233
CEP55	Centrosomal protein of 55 kDa	0.0202
ATP11C	Probable phospholipid-transporting ATPase IG	0.0047
RACGAP1	Rac GTPase-activating protein 1	0.0171
CLIC4	Chloride intracellular channel protein 4	0.0231