

## Supporting Information

### Outer Membrane Vesicles Secreted by *Helicobacter pylori* transmitting Gastric Pathogenic Virulence Factors

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Table S1. Differentially expressed proteins in GES1 cocultured with increasing concentrations of 11637 OMVs (0, 10, 20 or 40 µg).

11637 OMVs-10µg					
Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
TUBB8	2.162	0.024217601	TNS3	2.212	0.153284972
THBS1	2.807	6.77451E-08	VTN	2.621	5.70993E-07
POSTN	8.991	2.54011E-16	ASS1	3.936	6.45229E-08
HIST2H3A	0.29	3.52256E-12	FAM82B	0.444	0.011002043
PEA15	0.35	3.47029E-09	ATP5J	2.492	0.001485869
KPNA1	0.301	5.91744E-08	SUMO2	0.477	0.00024107
C3	3.876	1.4901E-13	MCU	2.724	0.020926126
KRT5	2.385	0.000124825	APOE	2.016	0.035937632
HBA2	2.342	4.97293E-07	COL6A1	2.447	0.244229396
APOB	5.045	2.54011E-16	NHP2L1	3.625	2.40622E-07
F2	4.725	2.66676E-12	GSDMD	0.355	0.010814906
ITIH2	10.141	2.54011E-16	COMMD1	2.267	0.057304282
PTMA	0.346	3.03753E-09	WIBG	0.377	0.000314954
SRSF4	0.393	0.000554565	TGOLN2	0.498	0.044004343
S100A16	0.488	0.001053018	ATP5D	0.48	0.003304074
C4A; C4B	2.24	0.084183746	ASUN	0.399	0.00243913
PZP	5.315	2.54011E-16	PVR	0.306	2.47303E-05
TEX10	2.642	0.003731882	STAM2	0.365	0.000666371
MTX2	2.038	0.020814425	ARL1	0.368	0.000731832
A2M	11.164	2.54011E-16	HEG1	3.027	0.010814906
NUP85	2.136	0.143143237	ZFP91	0.489	0.084183746
HMGN1	0.309	9.94373E-08	EIF2B2	2.861	0.001154569
ARL6IP5	2.527	0.000365112	SLTM	0.481	0.055279133
F5	3.229	1.21763E-06	SYNE2	0.295	3.35358E-05
PAPSS1	0.46	0.016877777	ADRM1	0.415	0.004576106
CD99	0.46	0.017145983	RBM12	2.347	0.066174711
RPE	2.195	0.021719904	PCNP	0.395	0.009232784
CRIP2	2.151	0.167491526	LRRC20	2.243	0.119363958
PPP1R9B	0.453	0.335710472	TAP2	0.455	0.043619049
SERINC1	0.46	0.324249686	ZC3H4	2.016	0.207730553
MIF	2.394	6.64752E-05	TCEAL3	0.329	0.027293272
CDC42BPB	0.477	0.024217601	FHL2	0.459	0.02091218
C2orf18	0.365	0.00231322	ZNF428	0.408	0.053754205
TTI1	2.181	0.164006453	C11orf83	0.264	2.65599E-06
JTB	0.353	0.042886803	ZNF148	0.484	0.038006955
CRP	3.598	4.063E-07	TRAPPC5	2.014	0.515643204
FGG	3.57	0.000282498	SLAIN2	0.453	0.040949613
TOMM6	0.459	0.01328746	C6orf211	2.248	0.123682228

CD63	0.453	0.01534456	APOM	2.812	0.000122134
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11637 OMVs-20µg

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
THBS1	4.637	2.46791E-16	TGOLN2	0.437	0.065299903
POSTN	10.225	2.46791E-16	PXN	0.483	0.596091811
SOD1	3.502	7.44061E-10	CCDC124	0.193	2.75872E-07
GSPT2	2.41	0.019921131	CDCA2	0.461	0.492043074
EIF4B	0.49	0.02162696	PVR	0.352	0.014280148
HIST1H2AB	0.253	2.91619E-10	CPOX	2.695	0.14669085
TUBB1	2.582	0.00095506	SP100	0.448	0.033782623
LUC7L2	0.405	0.000689945	VAMP8	0.436	0.028528481
SNRNP70	0.496	0.017076729	C20orf72	3.292	0.027458253
LUC7L3	0.417	0.006922544	MRPS2	0.357	0.047909709
IGHM	2.791	1.23412E-05	THYN1	2.283	0.011336179
C3	6.288	2.46791E-16	LSM14A	0.405	0.285762053
HBA2	3.048	1.15926E-08	ME1	2.595	0.025744655
APOB	6.074	2.46791E-16	COL6A3	2.656	0.109236047
F2	9.657	2.46791E-16	TOR1A	0.482	0.51295457
ITIH2	21.519	2.46791E-16	NDUFB11	0.494	0.16532662
PTMA	0.469	0.010081574	ZFP91	0.432	0.382672137
SRSF4	0.389	0.005120117	YY1	0.496	0.102696937
RPL26	0.399	0.005124665	MFGE8	2.183	0.067960392
COQ9	0.492	0.073662495	RPL29	0.466	0.009190835
CD276	0.282	2.97205E-05	SLTM	0.492	0.398653876
BICD2	0.421	0.042237095	GBE1	2.118	0.211397472
LYAR	0.475	0.045960008	HMGN3	0.404	0.345358029
S100A16	0.494	0.074389791	PCNP	0.44	0.200331796
C4A; C4B	4.86	6.97395E-10	MRPL47	0.448	0.181693048
DNAJC21	0.499	0.275962104	TMEM41B	0.497	0.578532294
PZP	12.587	2.46791E-16	NUCKS1	0.443	0.382947769
CHCHD3	0.453	0.040543958	CD151	0.449	0.024184675
A2M	22.79	2.46791E-16	CHMP1A	0.472	0.114491922
HMGN1	0.294	1.84156E-05	TCEAL3	0.365	0.233847642
ARL6IP5	2.771	0.000132927	FNBP4	0.475	0.240603531
EXOSC6	0.491	0.080133801	FHL2	0.41	0.044532985
CHD1	0.45	0.430693624	DPM3	0.461	0.063640097
NAGK	2.758	0.004216259	GALK1	2.11	0.16532662
POLR2D	2.214	0.021566182	ABRACL	2.217	0.253955425
F5	4.586	5.19541E-11	C11orf83	0.391	0.02191007
CD99	0.292	0.001943186	AIF1L	0.49	0.286299753
CRIP2	2.401	0.013932638	HP	0.446	0.023383879
SAAL1	0.474	0.063640097	GINS1	0.477	0.370105716

RRP9	0.483	0.144164199	GIPC1	0.403	0.401233025
VTN	2.573	9.35852E-06	C6orf211	2.595	0.032778929
SUMO2	0.364	0.000270362	APOM	5.99	2.01677E-13
GINS2	0.306	0.013767337	PPP4R1	0.445	0.430693624
MCU	2.209	0.037487257	CD63	0.291	0.001986486
MED4	0.499	0.172491702	MED12	2.215	0.348784093
APOE	2.405	0.000616613	COL6A2	2.694	0.002508855
PDCD4	3.366	0.035887698	COA3	0.447	0.043451094
EMG1	2.662	6.5677E-05	WDFY3	0.451	0.430693624
NGDN	0.418	0.02444033	TOMM5	0.382	0.004216259
COL6A1	4.535	0.000106918	ZNF143	0.442	0.429367461
MECP2	0.486	0.143286171	PTMS	0.269	2.27394E-07
STX16	0.274	0.098165802	PPP1R9B	0.332	0.273137969
ENOPH1	5.038	3.16978E-10	SERINC1	0.346	0.257679428
LAMP2	0.489	0.061576926	BRI3BP	0.467	0.584447655
NHP2L1	2.862	0.000826783	C2orf18	0.38	0.086318645
ARL8B	2.568	0.001779621	CHD1L	0.349	0.351305821
CLPTM1L	2.02	0.03834618	JTB	0.365	0.315149165
HBD	2.471	6.44861E-06	C11orf10	0.453	0.044969369
TMA16	0.402	0.126051115	CRP	3.007	3.68272E-05
ASCC2	2.087	0.376741529	FGG	2.693	0.076023956
PUM2	0.261	0.123123762	ATP8	0.463	0.087990513
GSDMD	0.452	0.293134791	PLD2	0.477	0.525280364
LYPLA2	3.287	0.00145942	WIBG	0.447	0.042869927
COMMD1	2.696	0.007727636			

11637 OMVs-40µg

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
TUBB2A	0.473	0.05139316	PCYT1A	0.487	0.365595446
TCOF1	0.488	0.044756579	COL6A1	6.475	2.92414E-07
THBS1	8.308	2.53462E-16	RBM26	0.378	0.00373699
TPI1	2.087	0.015542962	MECP2	0.473	0.076343672
POSTN	13.987	2.53462E-16	HNRNPDL	2.094	0.303267981
TAGLN2	2.127	0.01215408	ENOPH1	6.695	2.77803E-07
BASP1	0.467	0.027438655	FBLN1	4.48	1.71844E-05
PPIA	3.292	3.32371E-06	NHP2L1	3.886	1.88437E-05
EIF4B	0.482	0.039476032	HBD	4.334	3.14433E-09
EBNA1BP2	0.386	0.001637815	EXOSC2	2.108	0.311063051
HIST1H2AB	0.202	5.13717E-10	PPIF	2.524	0.093641984
TUBB1	4.821	2.02671E-07	CARHSP1	2.759	0.004475394
ALDOC	2.106	0.013723852	GSDMD	0.234	0.001407632
FN1	2.187	0.013473063	SRA1	2.443	0.062155596
LUC7L2	0.292	6.28355E-06	TMSB4X	2.195	0.141378369

SNRNP70	0.385	0.001527264	WIBG	0.452	0.039476032
LUC7L3	0.334	0.000361972	FABP5	2.489	0.01412194
KPNA1	0.393	0.006008638	SUMO1	0.489	0.053468397
IGHM	4.658	9.82744E-09	BOLA2B	2.284	0.100492286
PFN1	2.073	0.016991197	EML2	2.202	0.166007139
SRSF6	0.48	0.038940999	CCDC124	0.283	0.000399243
C3	12.505	2.53462E-16	ASUN	0.394	0.022974027
HBA2	6.023	1.2247E-13	PVR	0.304	0.001528094
APOB	14.002	2.53462E-16	PLG	3.098	0.0040839
F2	21.388	2.53462E-16	VAMP8	0.465	0.039107485
LGALS1	2.19	0.007912014	B4GALT1	3.955	0.001957416
DDX50	2.104	0.095315707	STAM2	0.382	0.01708079
SRRM1	0.353	0.001078883	ARL1	0.291	0.000721756
BANF1	2.181	0.012095015	MRPS9	2.021	0.274158
ITIH2	31.074	2.53462E-16	SRSF9	2.08	0.126101949
PTMA	0.311	2.5714E-05	ARL3	2.082	0.146854275
SRSF4	0.409	0.016254273	SDC2	0.428	0.065268771
TOR1AIP2	0.472	0.042071024	ACBD5	0.414	0.039476032
TXN	2.245	0.005379032	TXNDC17	2.121	0.122444234
PRDX5	2.626	0.003938046	C20orf72	2.16	0.440659443
CPS1	0.465	0.320155159	ARL6IP1	0.412	0.012013821
BICD2	0.426	0.055234551	NUB1	2.085	0.292693689
RNPS1	0.448	0.022299495	EPN2	2.576	0.007669184
LYAR	0.436	0.018394834	THYN1	2.219	0.092817017
CUTA	2.126	0.045965539	COL6A3	2.922	0.142852861
S100A16	0.482	0.064090128	HEG1	2.431	0.178336624
LRP1	2.682	0.00964675	MFGE8	2.841	0.023588442
C4A; C4B	5.587	3.55892E-09	SLIRP	2.629	0.021576797
ATP5H	2.429	0.061472892	SCAMP2	0.436	0.026596032
FHOD1	2.007	0.221050347	GBE1	2.664	0.089051842
PZP	22.505	2.53462E-16	SURF6	0.462	0.082742527
TEX10	2	0.329970395	PCNP	0.449	0.069603019
CBR3	2.201	0.352904712	BUD13	0.489	0.122444234
HNRNPLL	2.774	0.052291176	CPNE2	2.28	0.282248363
FAF1	0.472	0.383021968	TCEAL3	0.308	0.013566006
A2M	44.58	2.53462E-16	GALK1	3.28	0.009952996
NUP85	2.78	0.085910088	ABRACL	2.301	0.264667302
HMGNI	0.412	0.012564195	SDHB	2.123	0.106238688
SRSF11	0.417	0.013583519	C11orf83	0.35	0.007155428
MTAP	2.002	0.168278518	ZNF148	0.313	0.002163753
ITGB3	2.338	0.030992752	COASY	2.249	0.26574639
ARL6IP5	2.003	0.169280754	HP	0.471	0.055561752
AK1	2.109	0.134760929	PPIG	0.411	0.021525529
TGFBI	4.213	1.48527E-06	DNAJC3	0.317	0.029652868

EXOSC5	2.123	0.212256117	C6orf211	2.246	0.26574639
F5	9.34	2.53462E-16	APOM	7.274	5.59722E-15
NUBP1	0.489	0.128855655	NLRP13	0.448	0.024862856
SEC24A	2.476	0.068829392	MED12	3.504	0.015889381
STX4	2.479	0.001070814	GGA2	2.608	0.001728342
CD99	0.42	0.050773632	CLIC3	0.381	0.180915161
RPE	2.566	0.020114815	COL6A2	3.438	0.001076975
CRIP2	3.194	0.004511872	CCBL1	3.349	0.095315707
TNS3	2.589	0.083711495	TOMM5	0.424	0.01481271
VTN	7.348	2.53462E-16	SERINC1	0.367	0.108986058
RPA3	2.142	0.074616284	KATNB1	2.045	0.399185729
GPATCH4	0.48	0.102476371	MIF	2.135	0.039476032
SRSF10	0.496	0.088651815	C2orf18	0.448	0.067819083
SUMO2	0.443	0.016215416	JTB	0.434	0.194227657
AGRN	0.459	0.087616467	CRP	3.535	5.63113E-05
MCU	3.143	0.004540052	FGG	5.152	2.12831E-05
APOE	6.416	8.06287E-12	ATP8	0.496	0.105413447

Table S2. Differentially expressed proteins in GES1 cocultured with increasing concentrations of 11637 (1:1, 10:1 or 50:1).

11637 – 1:1

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
TUBB4A	2.563	0.001636127	TRMT112	2.506	0.003933575
SOD1	2.265	0.002328304	ASNS	2.586	0.005455191
KRT1	0.476	0.000783436	TMEM41B	0.455	0.015256005
KRT2	0.398	1.93021E-05	ENOPH1	3.264	0.00025588
KRT10	0.492	0.001568935	SCLY	2.346	0.022493246
KRT9	0.472	0.000586587	C14orf142	2.431	0.029756413
ANP32E	2.232	0.007579912	TPRKB	2.179	0.043262502
PEA15	2.089	0.020149966	CFDP1	2.227	0.019567008
HADH	0.478	0.002460814	VMP1	2.324	0.066039552
RPLP1	2.064	0.021302861	UBE2A	2.55	0.015495944
NUBP2	2.319	0.008704554	ABRACL	2.106	0.059979409
TRIP10	2.152	0.053415234	MT2A	0.454	0.010182337
FAM98B	2.358	0.005973634	GRWD1	2.446	0.010925165
HIST2H2AB	3.39	8.86095E-08	SPATA5	2.612	0.007579912
GPKOW	2.305	0.027241186	MMGT1	0.413	0.012094607
EXOSC5	3.058	0.000868632	C2orf18	0.461	0.007430037
HMBS	2.051	0.082087534	SIRT1	2.41	0.024010425
STK39	2.096	0.077549919	SELENOT	2.52	0.027074026
SCAF11	5.17	8.28015E-07	SNRPGP15	2.091	0.036707581
FGFR1OP	2.104	0.072114251	UBR7	2.038	0.183789676

WAPAL	2.009	0.101278653	RNASEH2C	2.127	0.059945075
BAG5	2.876	0.008407002	MRPS14	0.459	0.059140438
SAP18	0.46	0.001596268	TRMT1	3.155	0.01221736
SURF6	2.006	0.101278653	OGFOD1	2.101	0.217944774
SCNM1	2.056	0.457807234	HYPK	2.515	0.169408233
TOMM5	0.398	0.001157311	EIF1	2.118	0.066039552

11637 – 10:1

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
TOP2A	0.491	0.194752728	COL1A1	0.284	0.018790632
TUBB4A	3.319	0.00852822	ATAD2	0.448	0.366341164
RRBP1	0.467	0.139317668	KMT2A	0.419	0.274987228
RNH1	2.071	0.374790261	STX7	0.496	0.466243739
GLG1	0.431	0.098662457	FADD	2.376	0.210310864
HLA-B	0.486	0.181793272	STK39	2.573	0.094688691
KRT1	0.273	0.000559629	COL18A1	0.482	0.462991197
EIF5A	2.046	0.399580757	RP2	0.451	0.39609311
EEF1D	2.137	0.321955335	GBAS	0.486	0.483153592
KRT2	0.348	0.00924834	RHOT1	0.493	0.546694279
KRT10	0.334	0.006419149	ALDH5A1	0.481	0.510760394
KRT9	0.33	0.005558622	TMEM165	0.478	0.453032586
RPLP2	2.16	0.306136334	POSTN	4.002	0.004046496
ZYX	2.08	0.366633027	COL4A1	0.479	0.449019834
ICAM1	0.472	0.149615403	SCAF11	4.271	0.021549445
NAP1L1	2.281	0.224796357	HSBP1	2.096	0.331993345
KIF23	0.491	0.355396006	F11R	0.32	0.025000736
L1CAM	0.382	0.080784739	BAG5	2.997	0.040106351
LAMA5	0.492	0.500787356	EIF1	2.16	0.308644739
TPM3	2.076	0.369241424	TRMT112	2.688	0.082093969
MFI2	0.468	0.284413361	LSM1	2.058	0.379773102
ACSF2	0.453	0.223248663	ASNS	2.891	0.046333643
BCAM	0.361	0.056794479	F2	3.271	0.013944572
SMARCA1	0.495	0.503286128	BCAT1	2.198	0.254770554
ANP32E	2.238	0.247062976	ENOPH1	4.492	0.000805952
EEF1B2	2.628	0.080784739	FHL3	2.062	0.400132421
BTF3	2.151	0.29428723	C14orf142	2.494	0.137482455
WARS	2.365	0.18025845	TPRKB	2.219	0.258673762
ADNP	0.413	0.180710031	CCDC124	2.188	0.289734887
LRP1	0.386	0.140121739	SSSCA1	2.033	0.408233137
SQSTM1	3.079	0.018701643	CXorf26	2.015	0.39614836
HIST1H2AG	0.42	0.058059755	CD46	0.443	0.311677063
OAT	0.335	0.035177858	ZNF622	2.358	0.192087391

PEA15	3.084	0.019724159	INTS1	0.462	0.366341164
ALDH6A1	0.418	0.143580229	FAM129A	2.014	0.435850986
LGALS3BP	0.465	0.331989308	APOA1	2.283	0.204369545
HLTF	0.442	0.312636214	KLC4	3.661	0.004973877
HIST1H1A	0.495	0.381894182	YME1L1	0.442	0.341096283
RFC1	0.43	0.260640124	CMSS1	2.37	0.182624879
RACGAP1	0.453	0.22621357	UBE2A	5.126	0.000280596
HIST1H2AB	0.478	0.161853021	SPTLC2	0.451	0.400132421
RBMXL1	3.986	0.001798734	GRWD1	3.146	0.021513799
BOLA2B	2.295	0.174940451	GLA	0.436	0.317087371
HADH	0.462	0.182873924	PTTG1IP	0.353	0.05505758
PSIP1	0.485	0.222200442	SPATA5	2.471	0.147248203
UBXN1	2.04	0.354709879	UBFD1	2.187	0.280406921
TPT1	2.241	0.239154093	MDK	2.755	0.073147608
HBA2	3.42	0.006701074	MRPL50	2.407	0.140121739
GOLM1	0.454	0.302987498	CPD	4.155	0.001620853
SOD2	0.434	0.075837209	MRPL13	2.018	0.491107614
PYGB	2.637	0.092574481	COMMD3	3.147	0.027928142
RPLP1	2.602	0.089927843	COX7A2	0.484	0.458943672
CDKN2A	2.378	0.159997672	ITIH2	2.252	0.24583407
SLIRP	0.419	0.093952807	HBD	2.679	0.069292564
HIBCH	0.486	0.336999576	SIRT1	2.049	0.630748286
CD9	0.492	0.204369545	UBE2H	2.761	0.062613702
NTMT1	2.22	0.23581039	C12orf5	2.869	0.052858835
NUBP2	3.119	0.023746728	CORO7	5.86	0.000110934
TRIP10	2.52	0.126822413	GPX8	0.475	0.427944931
HBG1	4.589	0.000263403	SPARC	32.308	1.70643E-16
CYR61	2.316	0.170307752	SELT	2.628	0.151216576
GLYR1	0.481	0.503286128	GNPNAT1	2.265	0.523621901
FAM98B	2.145	0.311677063	LPCAT2	0.43	0.254352903
NUSAP1	0.462	0.336508066	RNASEH2C	2.236	0.280406921
ADAM10	0.488	0.487772174	TRMT1	2.813	0.291863021
COL5A1	0.291	0.026165993	GEMIN4	2.157	0.317044246
SDSL	2.4	0.181793272	UHRF1	2.461	0.136849687
NUDCD1	2.295	0.247062976	PPIC	0.499	0.551722702
UCHL3	2.361	0.191996342	CNPY4	0.417	0.284413361
GNB4	0.453	0.369161332	SARM1	2.142	0.614389556
ACADM	0.484	0.341096283	MAN1B1	0.483	0.523621901
NDUFA7	0.443	0.239525197	SCNM1	3.617	0.013626622
METAP2	2.929	0.047262741	CBS	2.34	0.222200442
PURA	2.041	0.369241424	PLSCR1	0.477	0.470605164
PSPH	2.35	0.157230563	MGST3	3.482	0.013626622
HIST2H2AB	2.503	0.121517428	HYPK	2.717	0.30500444
VTN	2.057	0.388669812	NIPSNAP3A	0.488	0.496754578



SPTLC1	0.404	0.222200442	BKPyVgp5	0.448	0.223248663
DNAJC10	0.429	0.287866017	APOM	2.281	0.252692906
PRC1	0.474	0.491107614	ARSB	0.336	0.072433898
POLR2D	2.017	0.439760059	DIRAS2	2.929	0.024892488
ISG15	3.669	0.003460969	TP53I3	3.933	0.003306742

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Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
MKI67	0.473	0.189088197	VRK1	2.093	0.254357492
TOP2A	0.482	0.210312159	COL4A1	0.389	0.16815419
TUBB4A	3.632	0.004473899	SCAF11	4.755	0.038637368
RRBP1	0.373	0.039568285	FTO	0.492	0.452013914
SMC3	0.495	0.240292534	NUBP1	2.024	0.483496801
HSD17B4	0.484	0.213806363	THBS1	5.227	0.00038749
GLG1	0.399	0.066534472	BCL2L13	0.469	0.396339377
SOD1	2.37	0.109701795	CECR5	2.523	0.170631112
SUN1	0.48	0.203916615	WAPAL	5.008	0.008820644
KRT1	0.499	0.250698403	F11R	0.445	0.22864345
BASP1	0.411	0.082482215	BAG5	4.914	0.006889644
EIF5A	2.259	0.146487123	SAP18	0.171	1.21775E-05
EEF1D	2.171	0.181533948	PAFAH1B2	2.274	0.189088197
KRT2	0.309	0.007832377	EIF1	3.751	0.011591112
HINT1	2.083	0.224988058	ERMP1	0.445	0.286428846
KRT10	0.349	0.023008053	TRMT112	3.327	0.020615974
MRC2	0.474	0.190681978	XPO7	2.375	0.131250297
RPLP2	2.185	0.175142826	ASNS	4.129	0.003693454
HLA-C	0.482	0.325557682	VBP1	2.493	0.095360072
ICAM1	0.423	0.099841193	TMEM41B	0.239	0.00473945
NAP1L1	2.868	0.026474556	F2	8.474	6.19384E-07
AK1	2.327	0.123234023	BCAT1	2.563	0.10940017
L1CAM	0.397	0.067627822	ENOPH1	4.422	0.005139039
ALDOC	2.299	0.131594342	DUSP12	2.578	0.275175204
LAMA5	0.36	0.066534472	C14orf142	2.974	0.142502783
MFI2	0.354	0.026263481	SQRDL	5.903	1.54942E-05
ACSF2	0.358	0.028301249	CD40	0.291	0.036372852
BCAM	0.173	1.0158E-05	EIF2D	2.077	0.543954158
HDAC1	0.467	0.177054097	CCDC124	5.367	8.30104E-05
MDC1	0.488	0.291670248	AK4	0.391	0.203110032
CTSB	0.404	0.073428945	EPS8L2	2.068	0.23248703
SMARCA1	0.474	0.348926176	SSSCA1	2.121	0.329936805
ANP32E	2.477	0.082062757	CD46	0.435	0.198931692
NME1	2.023	0.2610266	ACOT13	0.474	0.338237115
MYL6	2.002	0.274230726	CDK6	2.578	0.350230109

HSDL2	0.478	0.199859729	MRPS12	0.354	0.106465993
EEF1B2	2.695	0.043777588	ZNF622	2.651	0.149758903
BTF3	3.293	0.007478773	RCOR1	2.676	0.06015733
ACAD9	0.431	0.112008203	CASP8	2.838	0.269553857
RRM1	0.437	0.185964366	FSTL1	4.474	0.001927829
WARS	2.406	0.09970624	C20orf72	0.442	0.37262841
ADNP	0.448	0.228749974	GNL1	0.355	0.146914871
LRP1	0.336	0.054751739	F5	2.036	0.252572942
CTSC	0.464	0.173323134	NUF2	0.463	0.375540171
FAM50A	2.072	0.23004399	ZNF259	2.435	0.19700346
SQSTM1	5.278	6.07335E-05	C3	5.702	0.000191857
ANP32B	2.017	0.264756579	FAM129A	2.199	0.168370101
HP1BP3	0.444	0.133769435	KDSR	0.369	0.161181058
HIST1H2AG	0.454	0.151706006	ATXN10	0.498	0.464761983
OAT	0.334	0.037796972	PEX14	0.356	0.125933996
PEA15	3.499	0.004388112	APOA1	3.632	0.002668617
SRM	2.017	0.237660947	ZCCHC8	2.97	0.142502783
ALDH6A1	0.422	0.123786691	PCYT1A	2.333	0.468459015
PXDN	0.416	0.133214841	SCPEP1	0.475	0.41793089
HIST1H1B	0.461	0.165923464	NOL11	8.999	2.42104E-06
ITGA3	0.462	0.168031121	PFDN1	3.328	0.018023399
HLTF	0.423	0.225068314	IGBP1	4.439	0.024808346
HIST1H1A	0.34	0.021714532	KLC4	6.438	0.000620648
HIST1H1D	0.493	0.233618313	BZW1	12.235	5.32178E-10
RFC1	0.482	0.37412792	NEDD4	2.007	0.625157994
RACGAP1	0.393	0.06371909	OCIAD2	0.386	0.172173675
CD81	0.497	0.246438889	PIP4K2B	2.393	0.333865003
RBMXL1	23.245	1.09677E-16	VMP1	4.191	0.024571052
NPM3	3.502	0.008394335	UBE2A	2.202	0.338237115
ATP6V1B2	3.157	0.009937736	MRPS17	0.469	0.372250037
GNAI1	0.415	0.145468891	NUB1	2.383	0.241180163
MAP2K2	2.335	0.159482965	ABRACL	2.337	0.203916615
SUN2	0.372	0.101050023	COX2	0.492	0.232952093
ATAD1	0.447	0.265530123	MT2A	0.395	0.131155612
HADH	0.268	0.002196955	SPTLC2	0.2	0.002988855
PSIP1	0.454	0.151706006	NVL	0.462	0.377892427
TPT1	2.465	0.084637527	GGCX	2.915	0.052014505
CPT2	0.493	0.361884961	PPP1R9B	10.163	1.54461E-08
HSP90AB4P	2.576	0.352597273	GRWD1	4.267	0.002668617
HBA2	8.969	1.54461E-08	HMG3	0.176	0.001131875
IVD	0.43	1.54461E-08	TIMM17B	0.438	0.365670695
TNS3	2.441	0.082824859	DDTL	3.262	0.047003594
TXN	2.258	0.146827752	SLC39A7	0.182	0.001466224
GOLM1	0.48	0.306917531	NDUFS4	0.487	0.376772678

SOD2	0.386	0.051670469	CD99	0.323	0.084697696
PYGB	8.415	2.85884E-08	ENSA	2.046	0.268735545
RPLP1	2.895	0.024554153	ALG5	2.731	0.183857851
SRSF11	2.224	0.16815419	NDUFA4	0.499	0.370702782
DDX50	0.4	0.131341918	PTTG1IP	0.276	0.005399023
CDKN2A	2.778	0.032442606	SPATA5	4.34	0.005446593
BRD3	0.354	0.101050023	CYP51A1	2.924	0.055052385
SLIRP	0.437	0.122921409	MDK	4.302	0.028280324
TTC1	2.077	0.210312159	ADRM1	0.462	0.38233219
B2M	0.434	0.118113311	MMGT1	2.205	0.205150973
HIBCH	0.495	0.285019853	MRPL50	3.356	0.007725908
PRKAR2A	6.308	0.000144025	ARMC10	0.489	0.443367379
CD9	0.442	0.131155612	ELOVL1	0.347	0.118143192
NTMT1	2.249	0.136464134	UBE2L6	2.043	0.525113948
NUBP2	3.117	0.030752614	MAP1LC3B2	2.398	0.126388524
ASPH	0.493	0.356258174	CPD	17.706	3.12987E-14
SPR	2.007	0.3144212	COMMD3	43.371	1.09677E-16
TRIP10	2.435	0.188360333	OCIAD1	14.319	1.04034E-12
HBG1	42.085	1.09677E-16	SPAG7	0.479	0.468230204
PCBP3	3.489	0.004737053	ACOT8	0.448	0.356258174
CYR61	3.423	0.005249522	SPC25	19.561	5.64173E-13
FAM98B	2.471	0.134320793	GBP1	2.424	0.423480407
NUSAP1	0.408	0.151706006	SUMO2	0.221	0.000439378
IPO9	2.005	0.27712613	COX7A2	0.41	0.148129676
ADAM10	0.456	0.28570139	C2orf18	0.367	0.131155612
DNAJC2	3.093	0.020290851	WDR77	2.07	0.290303182
SDSL	2.079	0.360258361	TMEM65	0.426	0.201043677
CTSZ	0.411	0.121798244	ITIH2	4.224	0.001796945
LUC7L	3.678	0.005965014	PIR	9.813	6.75129E-06
UCHL3	2.58	0.101671973	FIP1L1	2.165	0.343080484
HMGNI	0.297	0.016049093	CRLF3	3.726	0.07021232
UBXN4	0.347	0.06015733	PPHLN1	0.484	0.420465512
ATP5L	0.476	0.196573924	CASP3	4.3	0.005794428
GNB4	0.268	0.01628031	TACC3	2.026	0.63773296
PURB	2.075	0.269935781	HBD	5.772	1.37618E-05
PLG	2.424	0.095143894	SNRPE	0.447	0.281344414
ACADM	0.391	0.066534472	SLC25A15	2.139	0.227135409
KDM1A	0.413	0.219550346	MRGBP	19.476	9.40551E-13
TAP2	0.45	0.278254859	ABHD12	0.493	0.233618313
NDUFA7	0.265	0.004249922	PYCR1	11.169	6.47383E-07
CCNB1	0.415	0.204668697	SIRT1	3.308	0.093641563
METAP2	2.876	0.054629482	LSM6	14.501	1.73791E-12
STK24	2.001	0.443862304	C19orf43	2.426	0.283295033
ADAM9	0.472	0.323993614	UBE2H	3.733	0.049904847

GLB1	0.374	0.166833761	ATP5I	0.414	0.08912228
PSPH	2.517	0.095674429	SAP130	0.353	0.101651479
MRPS18B	0.462	0.376132855	CADM4	0.368	0.161181058
HSPA14	2.032	0.318478314	MRPL27	0.318	0.141277604
HSP90AA4P	3.992	0.005591175	ECHDC1	6.507	0.000221329
MAVS	0.471	0.226217251	DPM3	0.419	0.190681978
HIST2H2AB	4.225	0.000677566	SELT	5.41	0.002669445
VTN	3.44	0.005166197	KANK2	2.672	0.329937506
IGSF8	0.446	0.310728377	LTF	2.583	0.079553967
RPE	2.149	0.299104883	GNPNAT1	3.847	0.101671973
SPTLC1	0.366	0.117172209	USP28	0.464	0.434246664
ENG	0.419	0.239453438	PROCR	0.465	0.377501833
DNAJC10	0.492	0.434176552	NDUFB5	0.391	0.190681978
MBNL1	2.269	0.185048166	FAM169A	2.308	0.344120951
GNG12	0.472	0.18793691	ANAPC7	0.383	0.217389892
H1FO	0.251	0.001085238	TRMT1	4.693	0.040291581
FAM3C	0.457	0.227336037	MRPL19	0.495	0.4633305
PRC1	0.46	0.348926176	FAH	0.392	0.29710282
CRAT	10.919	4.84978E-10	GEMIN4	2.044	0.408088648
CHTOP	0.466	0.175680465	LRRC8A	9.991	2.46178E-06
CLPTM1L	2.298	0.190681978	CBX8	3.481	0.076066009
POLR1A	2.553	0.175376202	UHRF1	3.848	0.003597315
FAHD1	2.189	0.23004399	DBR1	2.608	0.127849979
CAT	0.422	0.181004237	PPIC	0.42	0.257973675
TP53I3	4.762	0.000942238	TCEAL4	0.283	0.050729444
EXOSC5	2.086	0.375135201	CNPY4	0.421	0.203807379
HMBS	2.535	0.334793001	GMNN	2.169	0.375135201
MME	2.049	0.35009014	MAN1B1	0.496	0.464761983
TUBG1	10.423	3.46852E-08	SCNM1	13.535	7.75746E-07
FTH1	0.463	0.37283547	DIDO1	4.981	0.000516176
RALA	0.472	0.190681978	CBS	2.071	0.563686229
MRPS36	0.38	0.102107829	CLNS1A	2.268	0.192756786
NUPL1	0.463	0.259310298	S100A6	0.459	0.161943741
KIF20A	0.453	0.361884961	FAM114A2	6.245	0.00023801
COL1A1	0.21	0.00206424	PLSCR1	0.334	0.096361852
SLC44A1	0.491	0.23004399	POLR1B	0.482	0.303057841
MNAT1	2.393	0.35009014	MGST3	26.011	1.09677E-16
IPO4	2.611	0.076485535	PIN4	0.453	0.356258174
GTF2E2	2.499	0.190681978	ITIH3	2.028	0.609268141
VAMP3	0.491	0.345877537	HYPK	3.871	0.112391578
LACTB	2.114	0.178128054	UBLCP1	2.978	0.109965807
CUL2	2.247	0.151118096	A2M	2.112	0.314809785
FANCI	0.272	0.024437304	BKPyVgp5	0.295	0.007249227
ATXN2	4.38	0.001055156	NKAP	2.235	0.203232664

STX7	0.472	0.259305904	APOH	2.571	0.082929598
VPS4A	2.122	0.244892151	APOM	6.575	8.45092E-05
WBSCR22	2.551	0.089541415	ZNF512B	0.431	0.389442765
DHX16	2.354	0.161683534	FCF1	0.48	0.481359248
STK39	2.542	0.309293484	PSMC3IP	5.081	0.012545699
COL18A1	0.477	0.315088933	TOMM5	0.248	0.003494508
OAS3	2.025	0.21969437	LCMT1	15.319	5.94824E-09
RP2	0.437	0.275648039	MRPS18A	0.461	0.458729204
TGOLN2	0.428	0.25700392	FAM184B	2.133	0.198637446
PRKAR1A	2.331	0.175142826	ARSB	0.458	0.446067258
CHAMP1	0.428	0.27255139	DIRAS2	17.215	4.56403E-14
TIMM50	2.636	0.041259461	DLGAP4	2.376	0.425825391
RHOT1	0.451	0.320087724	IL18	2.553	0.27405099
PHPT1	2.039	0.27255139	PRMT3	2.9	0.09661627
PIGK	0.457	0.309049218	CEP290	3.815	0.002094446
TMEM165	0.368	0.126747783	POSTN	6.48	0.00018526

Table S3. Differentially expressed proteins in GES1 cocultured with increasing concentrations of 400 OMVs (0, 10, 20 or 40  $\mu$ g).

400 OMVs-10 $\mu$ g

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
EEF1A2	1.562	0.000311172	SCYL2	0.563	0.000492553
KRT1	0.578	0.000636327	TTC4	1.727	0.169141636
KRT9	0.501	6.85789E-06	MED21	1.809	0.564728592
TUBB8	6.902	2.13901E-07	KCMF1	0.406	0.230943309
YBX1	0.663	0.037572566	TPRKB	1.502	0.618898871
NME2	1.676	1.94856E-05	DPH5	0.659	0.714922579
HLA-B	1.772	0.193310472	NDUFA10	1.66	0.329918132
SOD1	3.315	2.54641E-16	ZNF598	2.215	0.139326348
ACTBL2	1.633	0.065046525	PEF1	0.648	0.307255499
ARF3	0.617	0.005516719	NOL6	0.208	0.016613547
HIST2H3A	0.494	3.68627E-06	DHX36	0.511	0.1895363
RPS13	1.508	0.001068672	H1F0	0.609	0.119321381
HLA-C	0.659	0.380938552	TCEAL4	0.464	0.305635413
GSPT2	4.186	2.07461E-10	SMARCD1	1.551	0.583853083
HIST2H2AB	1.886	7.50188E-08	SKIV2L	1.671	0.424816892
KRT14	0.47	0.054894375	TGOLN2	0.654	0.57310901
MARCKS	0.623	0.016652306	RPL36A	0.665	0.379449435
LRRFIP1	0.666	0.173252962	TBL2	1.621	0.283119141
POTEJ	1.889	0.429373979	NDUFB5	0.651	0.618898871
TAGLN	0.647	0.019662369	POLR2E	0.499	0.093086696
UROD	1.564	0.001532274	GPNPAT1	1.623	0.357864592

CHD5	1.808	0.493453153	NCAPH2	1.783	0.341033252
CCDC50	1.547	0.077640847	RRAS2	1.56	0.209752089
CNPY2	1.95	5.54026E-05	ISY1	1.752	0.155647245
ZCCHC8	1.594	0.046391633	BUD31	1.604	0.449807211
HIP1	1.52	0.118313952	TPST1	0.618	0.793146806
MAP2K2	2.014	0.351803764	PVR	0.351	0.005516719
BOP1	0.649	0.246425848	TIMELESS	0.589	0.618898871
LAMTOR1	1.589	0.002318309	RANBP3	1.645	0.406249682
MAGOH	0.649	0.031238318	RPL37A	0.613	0.360797199
NRBP1	1.824	0.000799525	TMUB1	0.419	0.41906193
THY1	1.516	0.002247544	TAB1	0.651	0.623505918
NAA15	0.654	0.166758318	WASL	0.621	0.006493648
HIST1H1A	1.552	0.161635026	MRI1	1.518	0.640029748
PPP1R14B	3.428	2.54641E-16	DUSP12	0.518	0.554849717
PPIL4	1.559	0.046748744	CHMP7	0.646	0.306171563
NUP85	1.567	0.555689849	DNAJB6	0.423	0.000975704
SRSF4	0.493	0.025039104	TMEM201	0.58	0.250276392
FADD	1.72	0.011641601	MRPS2	0.573	0.525717453
PTMA	0.395	6.17524E-10	BAK1	0.623	0.629719979
PRPF4B	1.527	0.113351859	KMT2A	1.656	0.486771178
SEC22B	0.56	0.011793605	TMEM205	0.659	0.63777029
PODXL	0.619	0.018905002	DPM3	0.573	0.231799011
ERH	0.557	0.000339252	RAB22A	0.64	0.585502448
C5orf51	1.513	0.15471442	CLCC1	0.352	0.036705253
GOLPH3L	0.54	0.218007196	CD99L2	3.128	0.000223697
SRSF5	0.621	0.062415869	VPS45	0.408	0.444677349
SF3A2	1.702	0.01724673	QTRTD1	0.568	0.426987682
MED15	1.595	0.075816685	ABCB7	1.716	0.38658669
VDAC3	0.651	0.136252174	PYCARD	1.547	0.618898871
RPL38	1.675	0.000189439	RPL29	0.467	2.59837E-07
MCTS1	1.685	0.080378013	SRFBP1	2.585	0.082404682
WAPAL	1.828	0.024661821	ZFP91	0.442	0.239738808
EML4	0.653	0.02582086	RPE	1.501	0.618898871
STX5	0.665	0.379514985	SERPINE1	0.633	0.477175674
HM13	0.649	0.153257959	KANK2	1.602	0.585502448
ESD	1.654	0.300850447	BCL2L1	0.512	0.153257959
TNPO2	2.31	0.17815321	IER3IP1	0.464	0.048108557
ITPA	0.654	0.341033252	ZNF428	0.623	0.477175674
MRPL12	0.321	2.54641E-16	STX16	0.566	0.629423589
BSDC1	1.503	0.419462333	SLC25A11	0.637	0.646211486
M6PR	0.63	0.027030261	RPL39	1.926	0.000174971
ADAM9	0.527	0.055777578	PTCD1	1.746	0.537198013
RAD23A	1.675	0.053449019	MBOAT7	0.609	0.486771178
EXOSC3	1.889	0.002010316	MYADM	0.517	0.467923184

SAMM50	0.593	0.107603752	PMVK	0.593	0.671824173
DIMT1	0.634	0.110199592	SLC9A3R2	0.546	0.638635743
BICD2	0.376	0.012663096	LEPREL4	0.61	0.406569556
HADH	1.552	0.076186131	NPC2	1.582	0.467729461
FAM105B	0.592	0.373356781	HIRIP3	1.576	0.537885573
PPP4C	1.942	0.201439327	TMEM41B	0.408	0.274336816
PFDN5	1.667	0.004491309	CRELD1	0.612	0.618898871
DYNLL2	0.593	0.31842287	BOD1	0.665	0.671824173
PCMT1	2.309	0.005904476	ABRACL	2.287	0.109379066
C14orf142	3.485	7.64642E-09	NIPSNAP3A	0.604	0.618898871
ALB	0.329	2.54641E-16	DYNLRB1	1.596	0.532193622
NOL10	0.642	0.438930127	ATP6V1G1	0.432	0.002010316
YKT6	1.728	0.019044827	PCYT1A	0.637	0.806443661
RPL18A	0.622	0.010012661	SDC2	0.63	0.704399451
HNRNPA0	2.149	0.002010316	DYNLT3	1.753	0.478000276
CETN2	2.245	0.007798352	CRLF3	0.424	0.18656695
HMGNI	0.357	5.342E-05	MASTL	1.687	0.493453153
CWC15	0.6	0.005644114	ADRM1	0.415	0.013050282
RPA3	1.824	0.052487053	TMUB2	1.766	0.531113858
S100A16	0.571	0.052569295	RAB30	0.612	0.790881601
DNPEP	1.619	0.161427126	AIF1L	0.606	0.446714291
FTH1	1.621	0.079023057	NUP37	1.662	0.618898871
PACSIN3	0.628	0.314987107	CCDC43	1.538	0.24577636
POLE3	1.53	0.089552253	COQ5	0.477	0.156371637
UBA5	1.562	0.251067369	ARL1	0.335	0.023138278
NPM3	1.943	0.013617572	DDX51	0.595	0.686055952
ILVBL	1.569	0.407148287	ULBP2	0.664	0.57310901
ARL6IP5	0.637	0.201667265	NARS2	0.598	0.618898871
DCBLD2	1.56	0.330709157	YIF1B	0.561	0.534452043
GATAD2B	0.489	0.128516841	ABHD12	0.592	0.037572566
PLEKHO2	1.763	0.130640584	WDR70	1.605	0.631787363
SNRPD2	0.656	0.274336816	APOE	2.389	0.008105754
ABII	1.844	0.068084686	UBE2J2	0.59	0.618898871
RPL28	0.518	0.002661871	EED	0.651	0.753850551
THUMPD1	1.584	0.285825746	SRC	0.541	0.618898871
SUCLA2	1.557	0.158801385	SLC1A3	1.525	0.652133914
SUN2	2.635	0.125289877	ARL2BP	0.619	0.435127345
AHSG	0.26	5.59237E-15	GDA	0.548	0.489294161
FAF1	0.521	0.424508351	SLC43A3	0.564	0.618898871
NUDT21	0.634	0.475029293	TSPAN6	1.559	0.618898871
ARL8B	2.171	0.011613021	EMC10	0.609	0.403965462
KLC4	0.493	0.213582226	MRPL21	1.899	0.250646827
SLC7A5	0.637	0.049891437	MECR	2.191	0.077796733
HTRA2	1.691	0.211857039	C9orf114	0.61	0.618898871

LRSAM1	1.883	0.437331933	SLC29A1	0.256	0.010541231
BANF1	1.61	0.000568194	BUD13	0.536	0.606696036
BAG5	1.916	0.155647245	NSA2	0.619	0.742832468
RDH11	0.515	0.12859221	OS9	2.419	0.000799979
MOB4	2.155	0.042142815	TAF9	0.647	0.786449089
SDC1	1.924	0.018905002	INPP1	2.048	0.09079003
BCAT1	2.657	1.34387E-05	TMEM33	0.496	0.094650747
SEC62	0.638	0.134256917	GEMIN4	1.506	0.424508351
IPO8	3.91	0.000598254	SLC35A4	0.362	0.003966463
FAM98A	1.519	0.246425848	SMEK1	0.641	0.681892997
EEF1E1	1.559	0.01531842	CD63	0.303	3.56087E-05
CLTA	0.652	0.049891437	MRPL22	2.887	0.000339252
COMMD3	1.732	0.157382786	CDC42BPB	0.582	0.345307996
GAR1	1.975	0.013776067	CKMT1B	0.652	0.772493107
TNS3	1.898	0.313007579	C6orf120	0.542	0.52443408
PZP	0.637	0.251452727	MTCH1	0.659	0.71389725
CLPB	2.161	0.123321293	POLR2F	0.236	4.11092E-06
SLC16A1	0.608	0.394152658	KLHL12	0.578	0.57310901
SHCBP1	2.612	0.129017665	URB2	0.448	0.269730423
LACTB2	0.529	0.054626941	PEBP1	0.567	0.618898871
EFTUD1	0.619	0.534119082	KAT7	0.471	0.045370533
ASAH1	1.596	0.358277358	LAMP1	0.453	0.017958226
UBR7	1.619	0.424508351	MAGT1	0.523	0.354904406
GPN3	0.136	2.40001E-05	SERINC1	0.478	0.588254933
PPP3CA	1.97	0.076679985	GMPPA	0.542	0.618898871
BUB1B	1.807	0.518817819	ZNF143	0.606	0.710752914
EXOSC5	1.764	0.193150249	PTMS	2.015	0.033073041
VAMP8	0.536	0.04443115	TOMM5	0.481	0.008889516
MECP2	0.579	0.253254139	LRP1	0.617	0.668955236
PFN2	2.34	0.003060742	GGA2	0.443	0.001205014
DDX10	0.585	0.489989698	UQCC	0.403	0.364125729
TMCO1	1.629	0.045370533	FAM175B	0.578	0.659124539
APP	1.553	0.358277358	SDHB	0.655	0.629668503
DOHH	1.51	0.511096355	NDUFA4	0.607	0.171002296
RAB5B	0.639	0.801684165	C2orf18	0.563	0.488692984
RRP9	0.478	0.36415372	UBAC2	1.511	0.040222111
MUT	1.693	0.448279613	MIF	0.389	0.000256069
WIBG	0.476	0.053335333	FAM96A	0.653	0.618898871
SLC25A22	0.641	0.450369059	C16orf80	1.576	0.552924028
COMMD1	4.979	1.55194E-08	CHD1L	0.516	0.622552039
AGRN	3.518	0.003438903	JTB	0.419	0.362527373
PPP6R1	2.399	0.01563635	TMEM258	0.654	0.273162185
CD109	2.108	0.250276392			



400 OMVs-20µg

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
TUBB2A	0.557	0.034041822	WIBG	0.477	0.009657884
EEF1A2	1.643	0.003858858	DRG2	1.519	0.662818211
TPM4	0.646	0.022574886	ARL3	0.566	0.123905921
TUBB8	2.848	0.100172345	TRIO	0.577	0.246790849
TPM3	0.656	0.031450361	PPP6C	1.745	0.480090682
SFN	0.658	0.043050899	COMMD1	3.67	0.000229955
HNRNPA1	0.64	0.018238741	PPP6R1	2.1	0.152625235
BASP1	0.609	0.005211072	GCLM	1.528	0.761010187
EIF4B	0.529	0.000185259	CD109	2.043	0.320348907
HMGB2	0.618	0.011994023	SF3B4	0.637	0.329399799
HIST2H3A	0.442	2.85747E-07	AUP1	2.364	0.025301757
HNRNPA3	0.652	0.038706671	GATAD2A	0.637	0.403415343
RPS13	1.501	0.034278419	MED21	1.709	0.583856778
RBMX	0.576	0.00113803	TXNDC12	0.598	0.155599797
GSPT2	1.987	0.206819926	KCMF1	0.316	0.000852434
HIST1H2AB	0.486	3.21859E-06	DPH5	0.443	0.025031461
MARCKS	0.622	0.015607161	ZNF598	2.441	0.053337478
LUC7L2	0.641	0.027494783	RBM34	1.822	0.227110512
LRRFIP1	0.659	0.057162889	SUMF2	1.649	0.611249554
THBS1	1.699	0.033871054	TOR1A	0.626	0.376620053
CHD5	2.079	0.289364939	PSMB8	1.828	0.403391313
PEA15	0.468	1.56015E-06	H1FO	0.642	0.142351105
UGP2	1.516	0.269983308	ACTR10	0.563	0.381777107
MAP2K2	1.702	0.554013301	TCEAL4	0.443	0.02334427
EMC1	1.582	0.223963727	KLHL7	1.564	0.677187261
H3F3A	0.383	2.34617E-10	POLA1	1.648	0.743770342
NRBP1	1.675	0.108211435	VTN	1.664	0.008544464
CD9	1.503	0.060084345	BAZ1A	0.652	0.448780889
DNAJA2	0.566	0.001916341	TGOLN2	0.471	0.010384799
PPP1R14B	1.559	0.236046517	COL5A1	1.87	0.325028819
HNRNPAB	0.56	0.002328815	PC	1.563	0.669729076
NUP85	1.706	0.493348367	POLR2E	0.234	2.36141E-09
SRSF4	0.416	0.000347774	GNPNAT1	1.594	0.527821654
FADD	1.576	0.23669937	NDUFB11	0.641	0.264231677
PTMA	0.479	6.50808E-06	CTSB	0.546	0.134702874
LASP1	0.645	0.137521692	YIPF3	1.843	0.487175269
MMS19	1.527	0.394730663	TCEAL3	0.545	0.181931028
DDX50	2.259	0.006033072	PVR	0.478	0.032906915
UQCRH	0.639	0.125321628	TIMELESS	0.64	0.423002686
NQO1	1.575	0.070831401	TIMM17B	1.561	0.726569919
SPAG5	0.585	0.251924105	TMUB1	0.361	0.04662248

LYAR	0.603	0.06370887	UACA	1.625	0.762405428
SRSF3	0.634	0.024067787	DNAJB6	0.461	0.000380983
ERH	0.595	0.003933032	ATP5J2	1.676	0.145058317
GNG12	0.628	0.02334427	NUDT19	1.562	0.725855098
CHMP4B	0.666	0.052125375	KMT2A	1.628	0.653603252
WAPAL	1.75	0.206819926	DPM3	0.466	0.001601833
UQCRFS1	1.666	0.11769331	CLCC1	0.525	0.090118349
OSBP	1.536	0.403415343	JUND	0.661	0.460029686
AP1G1	1.652	0.107888895	SLTM	0.551	0.164897122
ADAM9	0.489	0.003933032	ITIH2	3.333	0.022882962
PWP2	1.535	0.476507121	ABCB7	0.656	0.480090682
BICD2	0.301	3.75542E-05	GGCT	1.579	0.260232164
PCMT1	1.769	0.289364939	NIPBL	1.808	0.606558597
PDS5B	1.509	0.743770342	PYCARD	1.532	0.77162189
C14orf142	1.862	0.052446781	RPL29	0.46	1.41553E-06
ALB	0.453	1.87731E-07	KANK2	1.662	0.583832813
BAX	0.631	0.112832383	BCL2L1	0.215	2.51611E-07
DAP3	1.5	0.324101555	STX16	0.6	0.433160096
DHX29	2.117	0.085944329	THUMPD3	1.523	0.752421153
HNRNPA0	2.479	5.62407E-05	NEDD4	1.506	0.774109753
HMGNI	0.384	2.38644E-06	ITGB3	1.673	0.608091478
AAAS	1.54	0.277913523	PTCD1	2.253	0.266658817
S100A10	0.581	0.002400308	NUDT1	0.633	0.387899534
S100A16	0.428	8.36557E-05	HMGNI	0.466	0.130554372
BCL2L13	1.571	0.257133064	PMVK	0.572	0.381580495
ABCD3	1.632	0.38253354	SLC9A3R2	2.897	0.003046327
S100A11	0.512	2.82431E-05	MED8	1.852	0.418963128
PLRG1	1.674	0.129418155	TMEM41B	0.434	0.097400602
TEX10	2.196	0.022362824	PCNP	0.443	0.02334427
ILVBL	1.553	0.565432072	ATP6V1G1	0.445	0.000637937
PAPSS1	2.256	0.109651918	PCYT1A	0.531	0.402598044
CLPTM1L	1.52	0.323681737	TMUB2	1.709	0.583158957
DCBLD2	1.541	0.495876835	PIGK	0.507	0.106255278
ABI1	1.583	0.45098073	COASY	1.896	0.351996159
MPRIIP	0.595	0.189963953	TMBIM6	1.573	0.662005315
RPL28	0.631	0.023073052	LSM14A	0.641	0.456693497
DHX16	1.619	0.580858261	ARL1	0.386	0.004406429
CDC73	1.632	0.254490527	APOE	2.867	5.58922E-05
AHSG	0.286	2.90759E-16	GALNS	1.57	0.596956176
FAF1	0.419	0.073313709	DDX41	3.188	0.001872665
RPS27	0.628	0.098631006	APOOL	1.681	0.669729076
TIAL1	1.647	0.235628101	CASK	1.506	0.774109753
CD99	0.511	0.069265774	SRC	0.556	0.235059744
CDK2	1.662	0.120786128	TGFBI	2.125	0.112832383

BAG5	1.509	0.732857824	SLC1A3	1.606	0.647677947
GPR89A	1.866	0.295678766	NHEJ1	1.592	0.663836027
RAB3B	1.601	0.633893218	SLC29A1	0.421	0.016138286
PARD3	0.314	3.69347E-05	BUD13	0.549	0.223487669
IPO8	2.992	0.008600814	INPP1	1.624	0.610161431
LTV1	1.575	0.403415343	KATNB1	1.801	0.422363429
FAM98A	1.567	0.30939873	DHX37	0.443	0.144967552
POLD1	1.717	0.480090682	CCS	0.633	0.387899534
IAH1	0.577	0.160286155	GNG5	0.329	5.06281E-07
CLTA	0.616	0.007073144	CD63	0.4	0.002399275
COMMD3	1.798	0.243455521	MRPL22	3.255	6.94641E-05
CNBP	0.607	0.233538359	CDC42BPB	0.56	0.14670288
XRCC4	0.625	0.205235335	GBE1	1.635	0.619710599
TNS3	2.112	0.183661555	CKMT1B	1.604	0.655504711
SULT1A1	1.518	0.398628208	KIF14	1.67	0.677063884
CLPB	2.105	0.180485709	POLR2F	0.24	1.77594E-08
KIAA0196	1.906	0.25947987	URB2	0.54	0.146386934
LACTB2	0.661	0.205235335	PEBP1	0.64	0.455427107
NOP9	2.415	0.031728494	PPP1R9B	0.429	0.204271633
TRMT112	0.604	0.110341594	LAMP1	0.537	0.015339053
GPN3	0.127	9.19333E-12	MAGT1	1.515	0.657037399
PPP3CA	1.638	0.583553081	SERINC1	0.312	0.022882962
BUB1B	2.049	0.407895182	CHMP3	0.603	0.246790849
DCTN4	0.551	0.207363732	PIP4K2B	0.666	0.403415343
MAPK14	1.515	0.526232581	PTMS	2.174	0.012211269
C3	1.621	0.178212219	TOMM5	0.531	0.007467634
VAMP8	0.521	0.007423349	LRP1	0.421	0.030669459
MTPAP	1.693	0.501460321	VBP1	0.532	0.041462974
MECP2	0.593	0.128059342	NUCKS1	0.392	0.008776125
UCHL3	0.617	0.204134013	C2orf18	0.448	0.025756074
PFN2	1.895	0.068392876	UBAC2	1.689	0.077617509
CCDC12	0.62	0.261047716	FGG	1.571	0.77053853
ATP5D	0.488	0.001537889	RRP9	0.555	0.180485709

400 OMVs-40µg

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
TUBB2A	0.596	0.358351682	CLTA	0.584	0.192355917
EEF1A2	1.785	0.020554008	CNBP	0.496	0.192354132
STIP1	0.644	0.271678019	TNS3	2.115	0.406714997
SSB	0.653	0.311284758	INTS3	0.536	0.27430186
KRT1	2.546	6.74968E-06	KIAA0196	1.721	0.712050529
UCHL1	0.658	0.333709471	SGPL1	1.502	0.660825896

TCOF1	0.666	0.370054448	SEC11A	1.955	0.092928196
SERBP1	0.621	0.193017701	MARCKSL1	0.461	0.027355446
KRT9	2.488	1.26395E-05	CASP4	0.626	0.504882117
TPM4	0.561	0.053542544	NOP9	2.765	0.048794037
TUBB8	2.085	0.515013123	TRMT112	0.568	0.266070011
YBX1	0.638	0.251571069	FNTA	0.479	0.108201953
TPM2	0.551	0.041095031	EMG1	1.503	0.564403023
OGDH	1.652	0.072148895	GPN3	0.183	1.91909E-05
SFN	0.639	0.251571069	BROX	1.647	0.477267555
ENAH	0.636	0.389482386	PPP3CA	1.861	0.564403023
DNAJA1	0.657	0.477267555	BUB1B	1.544	0.849490773
CNN3	0.593	0.111853102	EXOSC5	1.581	0.813109973
BASP1	0.583	0.089818216	NEXN	0.631	0.543027022
AP2A1	1.507	0.343369721	C3	1.941	0.108201953
EIF4B	0.488	0.019413136	VAMP8	0.521	0.089671872
TXNDC5	0.655	0.319356177	MTPAP	1.804	0.599172847
HMGB2	0.597	0.201804315	CHCHD2P9	0.611	0.462633143
RAD23B	0.591	0.106185166	SMTN	0.584	0.668674441
HIST2H3A	0.28	3.71021E-07	CCDC12	0.645	0.571779314
CYB5R3	1.559	0.251571069	C16orf88	0.628	0.788075393
FSTL1	0.458	0.006938167	ATP5D	0.56	0.19899203
SLC25A13	1.557	0.242124987	CSTF3	1.608	0.792232654
BAG3	0.572	0.161364937	RRP9	0.592	0.495919056
TAGLN2	0.642	0.263773061	SOAT1	2.057	0.398785959
KRT16	11.024	2.58146E-16	S100A6	0.612	0.16546406
RPS5	0.602	0.134081914	WIBG	0.414	0.020860587
RBMX	0.653	0.311613293	MYO6	1.607	0.820646153
GSPT2	3.047	0.009627383	APLP2	0.501	0.189680246
HIST2H2AB	1.635	0.079717284	TRIO	0.596	0.569704879
KRT14	4.155	3.91438E-08	PTX3	1.541	0.763520909
PFKM	1.526	0.361719426	ADPRHL2	0.616	0.415544887
MOGS	1.544	0.271965037	PPP6C	1.627	0.797456997
HIST1H2AB	0.629	0.218071475	COMMD1	2.758	0.078801458
LUC7L2	0.54	0.097093495	PPP6R1	2.345	0.207176641
NNT	1.549	0.287056758	GINS2	0.634	0.48680766
FLII	1.515	0.499907591	GCLM	1.594	0.82271381
KHSRP	0.644	0.424632247	CD109	2.207	0.398785959
POTEJ	2.139	0.4083241	SF3B4	0.594	0.430683148
KRT5	2.491	0.002357078	RDH14	1.503	0.852477227
SF1	0.579	0.213644086	GTF3C1	1.753	0.678525098
DBNL	0.606	0.253565012	THOC2	1.517	0.719962108
TAGLN	0.551	0.041095031	AUP1	2.148	0.329435668
CDV3	0.599	0.251571069	SCYL2	0.56	0.078144986
GPD2	1.623	0.260898247	TTC4	1.702	0.562284496

PMPCA	1.641	0.398785959	TXNDC12	0.556	0.287309067
PRPF3	1.516	0.424632247	KCMF1	0.245	0.001110959
THBS1	1.511	0.514701222	DHRS7	1.711	0.564403023
CHD5	2.189	0.43716747	DPH5	0.663	0.717246572
PDHA1	1.59	0.4083241	DHCR7	1.729	0.504658149
PEA15	0.482	0.01947075	PPP1R2	0.53	0.263773061
SLC9A3R1	0.641	0.398785959	LRPAP1	0.608	0.463682717
RRP12	1.839	0.084684275	ZNF598	2.369	0.243217701
JUP	1.74	0.360200872	RBM34	1.735	0.553939275
UGP2	1.832	0.126406992	PSMD9	0.578	0.398785959
ACOT9	1.583	0.251571069	POLR3C	1.588	0.737600683
COPG2	1.655	0.398785959	RAB31	1.939	0.494198007
SH3GL1	0.634	0.406714997	TCEAL4	0.423	0.121699468
KLC2	0.513	0.055153414	SMARCD1	1.533	0.849490773
LUC7L3	0.57	0.162296587	TMTC3	1.759	0.646375762
SMCHD1	1.51	0.505895479	SCAMP2	0.638	0.481453034
UBE2N	0.662	0.350481005	TAF10	0.637	0.763503024
ATXN2L	0.595	0.282826118	KLHL7	1.544	0.84009918
FKBP3	0.587	0.23943503	BRK1	0.644	0.413559318
TCEA1	0.64	0.424632247	POLA1	2.125	0.495013285
EMC1	1.562	0.504658149	VTN	2.188	0.004982693
HSDL2	1.645	0.197448512	TGOLN2	0.507	0.191600718
H3F3A	0.445	0.009919407	LIMCH1	0.664	0.71819139
SPARC	0.414	0.004762642	SPC25	0.605	0.564403023
DNAJA2	0.594	0.225841652	RPL36A	0.582	0.230408053
PDCD11	1.531	0.370352145	SSBP1	1.794	0.383402576
STRBP	1.502	0.852477227	POLR2E	0.21	1.66875E-06
HIST1H1A	1.517	0.564403023	ARL6IP1	0.518	0.093560954
SDF4	0.618	0.342036291	CENPV	1.562	0.84009918
NOC3L	1.549	0.406286357	MRPS9	1.744	0.571779314
UBE2S	0.523	0.063319444	ISY1	0.617	0.505895479
ECHS1	1.636	0.395990113	YIPF3	1.736	0.728256645
NUP85	1.835	0.574160482	TCEAL3	0.442	0.252275262
SRSF4	0.549	0.206968725	DPM1	1.519	0.785686182
LUC7L	0.629	0.362228431	PVR	0.371	0.009043529
XRN2	1.679	0.266070011	METTL1	1.75	0.724896883
UBE2C	0.34	0.000191128	TIMELESS	0.598	0.564403023
PAFAH1B2	0.602	0.253795885	CCDC137	1.63	0.564403023
EIF1AX	0.645	0.426290746	ATP5J2	1.842	0.169989147
HEATR1	1.616	0.356478014	SLC44A2	0.638	0.518036626
DNAJC13	2.043	0.172912635	SLC38A2	2.804	0.055153414
PTMA	0.392	0.000293945	NUDT19	1.597	0.824787575
TFAM	0.654	0.48680766	KMT2A	1.645	0.791896459
LASP1	0.57	0.191600718	TMEM205	0.497	0.191857645

RPS6KA3	1.535	0.543027022	TACO1	0.555	0.311613293
DDX50	2.081	0.103281543	DPM3	0.463	0.046734891
CTR9	1.511	0.479177753	CLCC1	0.595	0.430683148
SLC25A10	1.569	0.463682717	SLTM	0.54	0.398785959
SLC25A12	1.572	0.711386206	NUP43	0.657	0.582773169
RBM8A	0.609	0.251571069	ITIH2	3.596	0.013310112
ZC3H18	0.567	0.179178921	ABCB7	0.399	0.0854973
HMGCS1	0.624	0.398785959	HBE1	0.61	0.424632247
TBCA	0.522	0.082744578	NIPBL	1.889	0.61006595
TIMM44	1.52	0.398785959	RPL29	0.431	0.002949829
LYAR	0.561	0.173842184	PRKRIP1	0.655	0.613355363
LPP	0.656	0.556868369	SRFBP1	1.904	0.626144354
SRSF3	0.625	0.311519348	PCM1	0.46	0.219838019
ERH	0.571	0.147432669	ZFP91	0.511	0.27316954
C5orf51	1.68	0.424632247	KANK2	1.542	0.852477227
PTPLAD1	1.629	0.252189649	BRCC3	1.516	0.852477227
PDAP1	0.563	0.120033939	ZNF428	0.618	0.477267555
SRSF5	0.574	0.227107617	PLG	1.703	0.717246572
HMGB3	0.655	0.463682717	NEDD4	1.811	0.614996536
GID8	0.476	0.111853102	ITGB3	2.074	0.452720487
CHMP4B	0.622	0.336477121	PTCD1	2.926	0.125538571
WAPAL	1.562	0.571779314	NUDT1	0.569	0.499907591
LBR	1.667	0.191600718	HMGN3	0.422	0.203401945
GPATCH4	0.66	0.497569361	MYADM	0.651	0.684042092
OSBP	1.536	0.718961291	SLC9A3R2	2.831	0.081726524
AP1G1	1.646	0.395990113	TMEM41B	0.435	0.251571069
OPTN	0.644	0.493575587	PCNP	0.441	0.126406992
RAD23A	1.601	0.543027022	ABRACL	1.565	0.84009918
ZRANB2	0.608	0.274995807	TMA16	0.586	0.512700917
RPS23	0.653	0.420392845	ATP6V1G1	0.502	0.103254248
PWP2	1.882	0.23265471	SCYL1	0.596	0.361719426
BICD2	0.504	0.179178921	ADRM1	0.508	0.134200906
HADH	1.566	0.494287147	TMUB2	1.97	0.54783545
CHCHD3	0.571	0.200560193	ASF1A	0.501	0.380675952
CRYZ	1.747	0.282675045	COASY	2.153	0.380685397
LRWD1	1.529	0.61006595	SLC5A6	1.644	0.765583134
PDS5B	1.549	0.84009918	COQ5	0.601	0.452611466
RPS20	0.585	0.191857645	TMBIM6	1.614	0.80448368
C14orf142	2.52	0.012076128	WDR44	1.632	0.624771856
ALB	0.39	2.64542E-05	SRGAP2	1.512	0.852477227
SMU1	1.513	0.568682884	ARL1	0.574	0.424632247
DHX29	2.122	0.338693262	RHOT1	1.541	0.843623064
HNRNPA0	2.346	0.025263881	APOE	5.108	4.0446E-08
NDUFA5	0.62	0.494024003	SSNA1	0.561	0.589356343

HMGNI	0.406	0.004506887	APOOL	2.034	0.515013123
SGTA	0.5	0.061424294	CHMP1A	0.583	0.333407643
AAAS	1.849	0.162296587	CEPT1	2.086	0.090294602
UCK2	0.601	0.286278069	CASK	1.764	0.719962108
S100A16	0.38	0.001860782	SRC	0.654	0.76472748
SEC23B	1.662	0.398785959	SLC1A3	1.776	0.685283171
ABCD3	1.873	0.390114314	ME1	0.521	0.271450173
PACSIN3	0.652	0.564403023	MID1	1.51	0.510168578
DYNLT1	0.655	0.559955102	AP3S1	1.505	0.852477227
S100A11	0.511	0.011363099	CMAS	1.697	0.756636323
PLRG1	1.973	0.091013002	MRPL21	1.52	0.852477227
TEX10	2.66	0.011841971	NHEJ1	1.913	0.532851417
NPM3	0.643	0.515909661	SLC29A1	0.416	0.089818216
PSPC1	0.602	0.408305469	SLAIN2	0.411	0.103174745
ILVBL	1.526	0.851216459	NSA2	0.608	0.763520909
EIF4H	0.638	0.416263925	MRPL13	1.819	0.649384157
PAPSS1	1.55	0.845738551	PPCDC	0.482	0.403693555
VASP	0.517	0.18537471	INPP1	1.55	0.845738551
SH3GLB2	0.614	0.701151981	GEMIN4	1.713	0.56337224
GATAD2B	0.652	0.564403023	CCS	0.566	0.440574981
DNAJC17	0.635	0.471048378	GNG5	0.495	0.087787492
ABI1	1.657	0.668250181	CBWD6	0.638	0.668250181
HMGNI	0.648	0.288721285	CD63	0.469	0.105689461
HNRNPLL	1.61	0.724896883	MRPL22	2.951	0.031886366
PANX1	1.779	0.170046899	CD320	0.557	0.475152981
SARM1	1.642	0.771388179	CKMT1B	1.749	0.685771375
SQLE	1.689	0.408305469	CETN3	0.601	0.59324337
ALDH3A2	1.59	0.463682717	KIF14	1.719	0.773194989
CDC73	2.103	0.0854973	GTF2A1	0.57	0.463682717
COL1A1	0.64	0.427351724	POLR2F	0.275	0.000115393
SEC24A	1.666	0.523349939	KLHL12	0.561	0.422612594
DBT	1.592	0.452895108	DERL1	1.506	0.852477227
EHHADH	1.53	0.552433692	URB2	0.5	0.271495663
NOL9	1.537	0.841878466	RER1	1.732	0.750794999
AHSG	0.289	3.35428E-07	PKP2	1.559	0.84009918
PITHD1	1.554	0.663950806	PEBP1	0.659	0.727575986
TXNDC9	0.651	0.550671386	NFYB	0.647	0.568682884
RPS27	0.608	0.343204913	PPP1R9B	0.465	0.452611466
CDC123	0.605	0.406714997	TIMMDC1	1.523	0.852477227
TIAL1	1.511	0.678554765	MAGT1	1.525	0.843623064
ARL8B	1.646	0.564403023	SERINC1	0.398	0.233121719
CD99	0.505	0.200560193	ZNF143	0.623	0.703907733
RAB8A	1.503	0.784308009	PIP4K2B	0.513	0.213644086
CDK2	1.648	0.388794005	PTMS	1.601	0.668674441

SRP14	0.637	0.398785959	TOMM5	0.656	0.454406254
MAN2A1	1.564	0.571779314	GGA2	0.599	0.32227613
HTRA2	1.946	0.370352145	VBP1	0.554	0.263773061
BAG5	1.629	0.765714922	NUCKS1	0.438	0.162296587
GPR89A	2.172	0.194513363	FAM175B	0.617	0.757807277
MRPL37	1.537	0.727559415	RNF181	0.489	0.164697926
VPS25	0.504	0.182316266	NLRP13	0.583	0.327016649
RAB3B	1.54	0.843623064	C2orf18	0.366	0.019050364
BMS1	1.58	0.527315589	TWISTNB	0.529	0.564403023
PARD3	0.501	0.201636268	MIF	0.654	0.482623135
RAB8B	1.519	0.80229918	JTB	0.457	0.398785959
SEC62	0.632	0.398785959	ANKRD40	0.583	0.734018866
IPO8	3.392	0.018974058	LTV1	1.554	0.668250181

Table S4. Differentially expressed proteins in GES1 cocultured with increasing concentrations of 400 (1:1, 10:1 or 50:1).

400 – 1:1

Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
PDIA4	0.426	0.208414679	NRBP1	2.2	0.680564653
CAD	2.1	0.781074026	TYMS	6.569	0.000247896
TUBB4A	2.908	0.241373403	PAFAH1B2	2.459	0.468191393
ATIC	2	0.842418501	B3GAT3	0.388	0.382069426
HSPH1	2.02	0.830560411	CD59	0.453	0.250392307
TXNRD1	2.278	0.677517809	TUBA4B	3.288	0.223523482
GART	2.2	0.71539508	FADD	2.874	0.326066592
HLA-A	0.478	0.342430406	SLC25A1	0.485	0.60195852
HLA-A	0.394	0.258055221	STK39	3.042	0.118972379
EIF4A1	2	0.842418501	SLC44A1	0.36	0.195335559
IPO5	2.226	0.626200359	SGTA	2.206	0.54792622
HIST1H4A	0.418	0.18814956	CRAT	0.462	0.512064155
RNH1	2.298	0.675698472	CDK6	2.422	0.582454963
EIF5A	2.484	0.566631843	ATAD2	0.415	0.329556223
PPME1	3.506	0.118019848	GDA	2.273	0.539592388
PPA1	2.166	0.737322251	DCTPP1	2.574	0.396931576
GLG1	0.49	0.472707811	HMBS	2.882	0.250392307
PFAS	2.259	0.615525627	ADSS	2.025	0.726043726
HLA-B	0.428	0.212980605	H1FX	0.482	0.356972144
KRT10	0.485	0.36696014	GBAS	0.478	0.688280195
KRT2	0.461	0.314163478	SSSCA1	2.183	0.662668693
CTPS1	2.087	0.779348841	DPM1	0.495	0.600675386
P4HA1	0.467	0.274458107	MPZL1	0.473	0.655078001
AGRN	0.325	0.087936095	IL18	3.176	0.158335947



GARS	2.243	0.677517809	COL18A1	0.346	0.251405535
GSPT1	2.267	0.559928362	PRAF2	0.466	0.539592388
IPO7	2.095	0.679938571	INA	2.756	0.433417538
UCHL1	2.235	0.691393453	SUZ12	0.338	0.272452709
IDH2	0.386	0.118972379	OGFOD1	4.866	0.012996853
HINT1	2.032	0.80431144	IRGQ	4.336	0.02982474
KPNA2	2.118	0.726043726	AATF	2.222	0.691393453
P4HA2	0.475	0.326066592	BRI3BP	0.394	0.359599806
EIF6	2.008	0.835409852	ERMP1	0.402	0.323196658
HSPG2	0.29	0.02788012	SLC25A11	0.469	0.547313445
NAP1L1	3.258	0.178811953	ITPA	2.599	0.370802191
SMS	2.307	0.539592388	MFF	0.373	0.161677004
CKB	2.216	0.604685614	TXNDC17	2.046	0.643537697
LAMC1	0.467	0.539592388	TXNDC9	2.017	0.779556437
NME2	2.315	0.661104497	DCXR	0.431	0.606114783
PSAT1	3.198	0.199011287	SAP18	0.307	0.061745104
CDV3	2.055	0.717916023	RBM3	2.363	0.604685614
SRM	2.571	0.329556223	ZNF259	2.603	0.37552137
TPM1	2.014	0.834136516	GNG10	0.279	0.067460713
ICAM1	0.441	0.250392307	AK4	0.482	0.626200359
CSDA	2.134	0.622180671	LSM1	2.357	0.56313518
LAMA5	0.417	0.374113244	EFHD2	2.039	0.706761263
NME1	2.041	0.815805597	DUSP12	2.221	0.572549568
BTF3	2.903	0.195093195	TGFBI	0.212	0.018891587
HSDL2	0.447	0.507121591	CD40	0.358	0.24136589
FN1	0.446	0.403435872	PEX11B	0.429	0.320000215
HIST1H2BJ	0.449	0.264776935	LGMN	0.427	0.356036684
PEA15	2.251	0.600675386	UCK2	2.531	0.392958318
MFI2	0.251	0.007639984	FYTTD1	0.423	0.379538509
CAPRIN1	2.034	0.645332613	VMP1	3.436	0.074476815
FHL2	2.851	0.2003263	TARS2	0.454	0.399626613
PXDN	0.479	0.561827682	AGPAT1	0.392	0.405101184
FABP5	2.75	0.314163478	CBS	3.208	0.133240452
TAGLN	2.182	0.726043726	TMEM41B	0.402	0.32439416
EEF1B2	3	0.264776935	PCCB	0.455	0.652639683
ANXA3	2.464	0.582454963	TPRKB	2.076	0.670372272
NAP1L4	2.069	0.600675386	CSRP2	0.441	0.512064155
BCCIP	2.12	0.601910419	SRC	0.246	0.021425564
HP1BP3	0.376	0.100549648	TBRG4	2.508	0.539592388
NPM3	2.137	0.659855906	MMP14	0.463	0.677517809
CDKN2A	2.958	0.140560658	DRG2	2.185	0.604685614
UTRN	2.147	0.710261307	NDUFAB1	2.808	0.263817676
UAP1	2.789	0.362792124	ZNF280C	0.467	0.624408171
TPT1	3.11	0.168468564	MYO1E	2.056	0.70134445

TAPBP	0.482	0.533602482	STX7	0.493	0.620959685
HIST1H1A	0.414	0.274743906	ABRACL	2.65	0.342430406
ALDH6A1	0.35	0.118972379	USP48	2.471	0.58135961
MTAP	2.274	0.483538295	MINPP1	0.384	0.2003263
EIF3J	2.231	0.629885087	HYPK	2.587	0.463582339
GNAI1	0.454	0.47628034	CRLF3	2.671	0.330442313
SOD2	0.363	0.08036259	TGOLN2	0.437	0.507121591
HSPBP1	2.144	0.676041398	RRP7A	2.064	0.601910419
ABCF2	2.039	0.600675386	ABHD16A	0.384	0.426957778
GOLIM4	0.493	0.624408171	DNAJC17	2.163	0.691393453
BOLA2B	2.131	0.507121591	DR1	2.965	0.301961443
TXN	2.293	0.677517809	PEX14	0.444	0.435927741
PTGFRN	0.479	0.597418951	C12orf5	2.921	0.168468564
SUN2	0.274	0.084081126	CTH	2.078	0.746307268
GLRX3	2.091	0.609386373	TGFB1I1	3.241	0.165844966
TAP1	0.484	0.60195852	SQRDL	0.366	0.320000215
NTMT1	2.302	0.448551937	MMGT1	0.487	0.691393453
EIF3M	2.207	0.656224494	CCDC90B	0.48	0.653829931
NACA	2.319	0.606924903	BAK1	0.296	0.050599892
RIC8A	2.218	0.613474807	PLGRKT	0.497	0.600675386
ITPR3	0.498	0.67806416	DCAF7	2.017	0.657062228
ASNS	4.905	0.004601805	SCPEP1	0.282	0.129571812
HADH	0.319	0.098444083	PAPOLA	0.477	0.524508608
PNP	2.026	0.645332613	JAGN1	0.311	0.088610451
GRWD1	2.212	0.559928362	ACOT13	0.497	0.667429081
B2M	0.342	0.051438599	C20orf27	2.138	0.71539508
IDI1	2.19	0.657062228	MECP2	0.361	0.263817676
RPLP1	2.457	0.46077815	VPS52	2.065	0.749155411
TRMT112	2.543	0.333248864	DPM3	0.478	0.606984703
BCAT1	3.8	0.03260109	SELT	2.224	0.699391533
EIF3F	2.008	0.67744545	WIBG	0.415	0.561827682
PUS7	2.1	0.677517809	CD47	0.381	0.264029858
KPNA3	3.052	0.16427082	ATG4B	2.581	0.314163478
FAM98B	3.191	0.162820326	LACTB2	2.094	0.70134445
PSPH	2.914	0.126333291	MRPL28	2.66	0.472707811
TUBG1	2.1	0.679938571	PPIC	0.475	0.634978248
RAB8B	0.465	0.604809839	CD63	0.34	0.112478375
EIF1	2.75	0.273908476	OPTN	2.281	0.659484956
SYAP1	2.545	0.507121591	ACOT2	0.476	0.600675386
METAP2	2.712	0.326066592	SAP130	0.367	0.217341652
NDUFA7	0.387	0.223523482	USP11	0.391	0.2488261
HMGN1	0.335	0.122832659	COX7C	0.403	0.366636807
PBXIP1	0.492	0.606924903	MRPL10	2.74	0.466020675
SDPR	2.149	0.644650645	GPRC5A	2.211	0.691393453

NUBP2	2.865	0.264776935	ARHGEF12	0.469	0.483925889
NAA10	2.06	0.643537697	HTRA1	0.29	0.10017458
HIST2H2AB	2.545	0.512064155	TOMM5	0.351	0.161677004
NDUFB7	0.428	0.333248864	AP1M2	0.404	0.158249308
TAP2	0.397	0.472707811	FAM184B	0.43	0.217341652
ADAM10	0.469	0.680959387	RBX1	0.473	0.533602482
GIPC1	2.123	0.677517809	PLCH1	0.432	0.468731645
JMJD6	2.211	0.680959387	DIEXF	0.498	0.540136401
H1FO	0.329	0.037802229	SLC44A2	0.439	0.512064155
PPP2R5D	3.929	0.054781381			

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Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
FLNC	2.06	0.403135449	CAT	0.402	0.157507733
EEF1A1	2.004	0.444670276	RP2	0.425	0.211487273
MKI67	0.406	0.036719364	FADD	2.309	0.446479758
PDIA4	0.474	0.118110837	F5	2.782	0.086830828
CAD	2.101	0.377049514	PTMA	0.344	0.016427705
TUBB4A	2.671	0.114210052	STK39	2.279	0.492951032
SLC3A2	2.168	0.327538828	HMMR	23.575	2.06217E-16
HLA-A	0.4	0.050174553	SLC44A1	0.378	0.086047559
EIF4A1	2.594	0.118238844	SGTA	2.084	0.421112858
NSUN2	2.152	0.324791289	CDK6	3.031	0.107311117
RRBP1	0.314	0.005757801	ATAD2	0.482	0.306034031
IMPDH2	2.018	0.433281617	UCHL3	2.442	0.213349268
SMC3	0.456	0.095175528	UBE2S	3.532	0.01599774
RNH1	2.029	0.427601761	CHCHD2P9	0.325	0.036719364
EIF5A	2.312	0.238015821	ATP6AP1	2.331	0.420404318
KRT1	0.372	0.017343213	MAP2K3	2.582	0.231744419
PPME1	2.496	0.156873904	WBSCR22	2.363	0.356848851
PPA1	2.069	0.400106787	H1FX	0.414	0.042976563
GLG1	0.251	0.000497953	SSSCA1	2.226	0.427601761
HLA-B	0.493	0.152337829	ISG15	3.626	0.009682622
HSPA2	0.467	0.264635672	C3	4.258	0.010546361
KRT2	0.325	0.00497766	MPZL1	0.452	0.295644401
CTPS1	2.246	0.277134903	RHOT1	0.428	0.123264198
P4HA1	0.467	0.101858277	IL18	2.616	0.196878937
AGRN	0.445	0.20451879	RPL7L1	3.116	0.068753415
BASP1	0.373	0.017699902	AHSG	2.477	0.159805474
RPSA	2.129	0.357927259	COL18A1	0.321	0.036878526
EPHA2	2.121	0.395757536	GPR89A	4.326	0.006023159
KRT9	0.331	0.008648218	INA	2.745	0.295644401
RPLP2	2.488	0.155920424	OGFOD1	2.362	0.394983609

EIF4G2	2.29	0.208866916	IRGQ	4.929	0.001836522
EIF6	2.376	0.187057863	AATF	2.089	0.549191664
PLOD2	0.388	0.028668861	CUL2	2.06	0.403135449
EEF1D	2.133	0.354761112	PCYT1A	2.277	0.328262623
HSPG2	0.233	0.000829015	IFITM3	0.236	0.007018598
NAP1L1	3.125	0.030110702	SOAT1	2.409	0.264635672
GNB1	0.459	0.116090667	ITPA	2.236	0.383764414
GEMIN5	2.073	0.372748092	NIT1	0.476	0.252435514
SCRN1	2.46	0.156873904	PZP	12.228	7.91811E-07
PPP2R1B	2.012	0.415482626	FIP1L1	3.101	0.080370214
SRM	2.645	0.108928838	SAP18	0.472	0.264635672
L1CAM	0.335	0.021218168	CXorf26	2.197	0.40261756
ICAM1	0.279	0.0008258	TRA2A	2.58	0.130664718
MRC2	0.35	0.037948626	ZNF259	2.191	0.407554567
LAMA5	0.487	0.367464392	GNG10	0.384	0.095658297
WDHD1	0.487	0.30088881	PHF5A	0.375	0.096270397
CSDE1	2.349	0.206235839	CCDC6	2	0.667857063
BCAM	0.364	0.031010117	TGFBI	0.279	0.025933744
ACSF2	0.378	0.045759925	DDX31	2.012	0.645727978
PTK7	0.447	0.16051169	CD40	0.444	0.260795756
BTF3	3.356	0.0172045	MARCKSL1	0.124	2.00844E-06
CTSB	0.383	0.022649646	F2	6.071	0.00010089
PEA15	2.329	0.196878937	LGMN	0.388	0.079004632
MFI2	0.231	0.000769664	CLPTM1	2.073	0.618110641
FHL2	2.534	0.167678087	PKP2	4.73	0.012805674
PXDN	0.352	0.052231381	GEMIN4	2.148	0.407860518
TTLL12	2.21	0.268581209	FYTTD1	0.438	0.180839333
SQSTM1	4.361	0.00167399	A2M	3.185	0.024506547
ANP32B	2.042	0.403135449	SLC16A3	0.391	0.06920213
HIST1H2AG	0.367	0.015639757	ATP6AP2	2.486	0.334886977
HIST1H1B	0.426	0.053942649	EXOC4	0.237	0.005612212
UMPS	2.016	0.427601761	CBS	3.631	0.053681082
WDR55	2.005	0.467523593	TMEM41B	0.125	5.21123E-07
EEF1B2	3.299	0.017699902	CLNS1A	2.383	0.311398635
NAP1L4	2.135	0.337582569	PCCB	0.453	0.349462949
BCCIP	2.024	0.403135449	CIRBP	2.173	0.452221195
HP1BP3	0.434	0.058952114	TPRKB	2.388	0.430133131
NPM3	2.066	0.529491706	COMMD3	2.746	0.252435514
CDKN2A	4.33	0.002333192	CSRP2	0.435	0.289936487
UAP1	2.389	0.197692099	ZCCHC8	2.136	0.580646967
TPT1	3.264	0.016438798	GID8	2.378	0.427747288
HIST1H1A	0.327	0.023254133	SLC2A1	0.499	0.392468121
HIST1H2AB	0.458	0.093553086	NUBP1	2.348	0.40261756
ALDH6A1	0.302	0.014803277	MMP14	0.232	0.004634842

PSIP1	0.324	0.008199884	L2HGDH	0.398	0.103932547
C14orf166	2.089	0.383813665	DRG2	2.01	0.642705283
IPO4	3.226	0.038949887	NDUFAB1	3.074	0.098825535
TSR1	2.093	0.450151401	ITIH2	3.021	0.047657506
HBA2	7.304	6.0334E-07	STX7	0.435	0.223237904
THBS1	3.49	0.027752584	TP53I3	4.787	0.002063324
GNAI1	0.369	0.070114475	HS1BP3	2.127	0.566851791
HLTF	0.349	0.071365765	APOA1	2.459	0.169218718
SOD2	0.333	0.005807716	PUS1	23.676	2.06217E-16
HSPBP1	2.931	0.115524197	ABRACL	2.272	0.40261756
ABCF2	2.74	0.091098925	SPTLC2	0.357	0.116916585
RPL26	0.462	0.15106058	CCDC86	2.023	0.467523593
RPS10	2.039	0.414298188	NENF	2.069	0.596251259
KRAS	0.488	0.258626584	HYPK	2.565	0.252435514
GOLM1	0.37	0.076614338	TGOLN2	0.329	0.054761928
SUN2	0.236	0.003120305	DDTL	2.487	0.220696923
SIN3A	0.497	0.367884574	ACYP1	0.4	0.133829838
UBXN1	2.013	0.426155573	TRMT61A	2.229	0.49628079
BRD4	0.419	0.168334428	ELOVL1	0.435	0.234623142
NTMT1	2.5	0.151187879	SNX4	2.855	0.267687276
EIF3M	2.002	0.560734082	DR1	2.3	0.433281617
NACA	2.292	0.298372446	ALG5	3.287	0.085639293
CAV1	2.765	0.066404016	C12orf5	3.397	0.074895588
RIC8A	2.536	0.201390034	GOPC	2.063	0.570036739
GATAD2B	0.498	0.358341096	OTUD6B	3.107	0.108750572
ASNS	3.476	0.023254133	SLC27A2	2.51	0.321195009
HADH	0.289	0.00283268	TGFB1I1	3.75	0.067921398
GRWD1	3.369	0.021306704	SQRDL	0.403	0.196878937
B2M	0.22	3.4738E-05	SULT1A1	0.391	0.134954743
RPLP1	3.609	0.005076117	UQCRQ	2.047	0.446479758
HPCAL1	0.464	0.257211287	SLC25A15	2.202	0.427601761
TRMT112	3.547	0.009163992	CPD	2.109	0.324791289
BCAT1	2.68	0.208042459	HBD	4.147	0.001694515
EIF3F	2.092	0.403135449	DCAF7	4.273	0.009697999
KPNA3	2.375	0.301424998	LSR	0.275	0.024094154
ALB	3.177	0.024837458	TRIM26	2.053	0.590075279
EIF3G	2.292	0.267687276	SCPEP1	0.29	0.044072344
SRSF11	2.05	0.377286491	JAGN1	0.206	0.001436608
CTSZ	0.39	0.102350472	ACOT13	0.46	0.274139269
TTC1	2.071	0.33902736	C1orf198	2.03	0.665916448
SCAMP1	0.493	0.306163484	SIRT1	2.808	0.233821644
HSPA14	2.484	0.26370811	MRGBP	2.987	0.143915404
TUBG1	2.905	0.085637635	C20orf27	2.251	0.487362495
BRD3	0.311	0.012026163	MRPL17	2.248	0.49628079

HK2	2.468	0.256717499	MECP2	0.486	0.339741119
FAM162A	0.498	0.358430676	LTF	3.909	0.003845934
CDK11B	2.101	0.358430676	DPM3	0.429	0.219008782
NOC4L	2.111	0.358341294	FAM129A	3.135	0.027858508
EIF1	4.063	0.011309277	C2orf18	0.259	0.004007642
NLE1	2.778	0.13292495	DCUN1D5	2.159	0.428940581
PNO1	2.052	0.49819879	VAMP5	0.462	0.326772931
ACADM	0.449	0.210297086	BRCC3	55.58	2.06217E-16
METAP2	3.423	0.053037533	PIN4	0.439	0.264635672
NDUFA7	0.284	0.011663314	CMBL	2.281	0.52445279
ZNF638	2.024	0.488963231	RRP15	2.306	0.348025063
HMG1	0.185	0.000208196	CASP3	3.206	0.10496257
ZNF622	2.482	0.199314299	MRPL28	2.397	0.427601761
GC	2.376	0.271873622	CD63	0.381	0.128828906
SDPR	2.349	0.331264408	OPTN	2.225	0.532682295
NUBP2	3.233	0.068164665	GSK3A	2.276	0.49474858
ANKHD1	3.131	0.139109483	SCARB1	2.371	0.30088881
VTN	2.482	0.188533922	SAP130	0.493	0.334886977
NAA10	2.249	0.264635672	SRP9	0.394	0.064449466
PRKAR1A	2.048	0.49628079	HSD17B7	0.459	0.329685422
HSP90AA4P	2.04	0.55678996	BKPyVgp5	0.418	0.147587747
GLB1	0.445	0.295644401	APOM	4.059	0.022649646
ADAM10	0.439	0.261916163	MRPL10	3.302	0.174676485
GIPC1	2.214	0.360785137	MRPL35	2.799	0.196878937
BZW1	2.727	0.123958292	DIRAS2	4.135	0.003182777
DNAJC10	0.381	0.116515627	HTRA1	0.298	0.074640622
JMJD6	2.888	0.138307783	LXN	0.478	0.38188778
H1FO	0.188	3.46914E-06	FAM105B	2.013	0.64271192
PPP2R5D	2.728	0.222658277	RAI1	3.739	0.046122774
CLPTM1L	2.286	0.306034031	RBX1	0.456	0.1926748
TYMS	3.273	0.053681082	CEP290	2.639	0.114323769
PAFAH1B2	2.404	0.305544601	RNGTT	2.737	0.178943426
UBXN4	0.256	0.002943199	SLC44A2	0.313	0.059702389
HBG1	19.229	2.26974E-14	MAN1B1	0.449	0.313320609
MRPS36	0.285	0.021218168	TUBA4B	2.436	0.403135449
PURA	2.285	0.374560925			

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Gene Name	Sample/Control	P-Value	Gene Name	Sample/Control	P-Value
FLNC	2.21	0.139100361	HEXIM1	2.232	0.442047603
MKI67	0.343	0.012140326	MAP2K3	3.252	0.073244608
TUBB	2.409	0.078344833	SH3GLB2	0.426	0.159556164
PARP1	0.488	0.176287491	WBSCR22	2.179	0.406576909

CAD	2.38	0.085029147	HIFX	0.357	0.017620169
TUBB4A	2.72	0.078996542	TMSB4X	0.371	0.151637054
TUBA4A	2.036	0.220762605	SSSCA1	2.332	0.30240431
SLC3A2	2.296	0.108001726	ISG15	2.304	0.262689067
TUBB3	2.129	0.327037142	C3	8.266	3.65473E-06
HNRNPA3	0.459	0.125161364	ALDH5A1	0.497	0.410083399
TUBB6	2.085	0.197565656	RHOT1	0.463	0.272485933
HLA-A	0.43	0.091263351	IL18	2.337	0.315408003
EIF4A1	2.699	0.032578918	RPL7L1	3.06	0.08761642
NSUN2	2.53	0.047697314	AHSG	3.289	0.005603633
RRBP1	0.305	0.003931982	COL18A1	0.47	0.359202147
IMPDH2	2.107	0.1807592	GPR89A	7.69	4.12804E-05
NAMPT	0.479	0.162234435	INA	3.104	0.328054018
DDX3X	2.015	0.23229926	NDUFA2	0.376	0.151637054
GLG1	0.271	0.001332034	ATP6V1E1	2.294	0.269594696
HLA-B	0.452	0.112969587	OGFOD1	2.251	0.619359793
HSPA2	0.497	0.416515252	IRGQ	2.651	0.433002822
CTPS1	2.545	0.055304548	AATF	3.56	0.096505241
PABPC4	2.085	0.145370834	ARPC5	0.489	0.352436638
BASP1	0.325	0.00734166	CUL2	2.022	0.233262998
RPL9	2.05	0.212518134	ERMP1	0.341	0.064512112
RPSA	2.036	0.220759793	PCYT1A	2.291	0.223576249
EPHA2	2.411	0.065191411	TST	0.475	0.278412231
PCBP2	2.025	0.226708252	FBLN1	3.502	0.040970813
RPLP2	2.181	0.150815589	IFITM3	0.268	0.011125772
EIF4G2	2.419	0.063649749	SOAT1	2.964	0.104492987
EIF6	2.129	0.169055152	ITPA	2.008	0.502442921
PLOD2	0.421	0.07197492	NIT1	0.413	0.155941832
HSPG2	0.196	0.000278995	RAB6B	2.131	0.503007786
NAP1L1	3.28	0.004688618	MLLT4	4.732	0.006563319
GNB1	0.482	0.15935463	HELLS	0.488	0.329998258
GEMIN5	2.194	0.272296037	PZP	16.845	5.39527E-08
SCRN1	3.013	0.013524828	PC	2.527	0.181994008
DDX39A	2.081	0.350054676	FIP1L1	3.389	0.037021909
SRM	2.729	0.078665699	CXorf26	2.12	0.393517901
L1CAM	0.359	0.048132215	GNG10	0.233	0.002025624
ICAM1	0.26	0.000630761	INTS1	3.712	0.065530788
MRC2	0.333	0.028636182	STX10	3.078	0.226708252
CTTN	0.492	0.173356063	PHF5A	0.305	0.046822229
LAMA5	0.416	0.266353993	TGFBI	4.446	0.004014802
JUP	0.39	0.053833673	CD46	0.381	0.172247544
LASP1	0.327	0.007767802	DDX31	2.031	0.382265331
WDHD1	0.466	0.162234435	MARCKSL1	0.03	9.46722E-15
CSDE1	2.254	0.174137426	F2	17.519	3.55821E-10

BCAM	0.248	0.001358693	KIAA1524	2.434	0.554078839
ACSF2	0.392	0.066048293	PEX11B	2.516	0.153509077
PTK7	0.355	0.044385961	CECR5	2.756	0.111454982
BTF3	2.496	0.141811133	LGMN	0.468	0.288973473
CTSB	0.328	0.00801505	CLPTM1	2.538	0.366891044
BCAP31	0.427	0.076643407	LRRC40	2.994	0.22912266
POLR2A	0.494	0.410648327	PKP2	25.373	1.42296E-12
PEA15	2.588	0.064212912	GEMIN4	2.409	0.27069171
MANF	0.365	0.020574672	RAI14	0.33	0.169897897
MFI2	0.331	0.018963816	NDUFS6	0.45	0.255206945
PXDN	0.334	0.089237609	STXBP2	2.096	0.681994181
WDR12	2.528	0.145356325	PTPN2	2.046	0.438796978
TLL12	3.036	0.049742784	FYTTD1	0.489	0.30240431
YARS2	2.428	0.284220801	A2M	4.647	0.00198062
ACTBL2	2.108	0.596043593	SLC16A3	0.469	0.265679571
SQSTM1	5.831	0.000164837	ZNF207	0.339	0.046822229
KRT14	3.735	0.00651051	IGBP1	4.481	0.026777996
HIST1H2AG	0.199	1.87581E-05	ATP6AP2	3.165	0.088000092
HIST1H1B	0.396	0.043506322	MRPL9	0.309	0.143490101
UMPS	2.461	0.117979399	CBS	2.234	0.615942293
EEF1B2	2.572	0.050587741	TMEM41B	0.043	4.65429E-11
TPX2	0.404	0.096505241	CLNS1A	2.61	0.223664785
OAT	0.496	0.366891044	XPO7	4.189	0.01560737
NAP1L4	2.075	0.355110573	PCCB	0.392	0.145370834
CRIP2	0.476	0.175156132	COMMD3	3.145	0.142722001
BAG2	2.185	0.104137457	CSRP2	0.475	0.305955953
HP1BP3	0.426	0.074556355	LEO1	2.046	0.432909458
NPM3	2.378	0.230876898	ITIH3	2.282	0.504015002
CDKN2A	3.616	0.019029267	ZCCHC8	2.398	0.476059708
TBL1XR1	0.443	0.270603375	NDUFA8	0.476	0.416063942
HIST1H1D	0.434	0.084850264	SLC1A4	2.731	0.119391722
TPT1	2.738	0.016232065	NUBP1	3.961	0.059360118
RAB21	2.036	0.273008364	KANK2	2.052	0.659198425
ECI2	0.488	0.318358542	TSTA3	0.374	0.103969402
HIST1H1A	0.285	0.010325657	DRG2	2.188	0.608357213
HIST1H2AB	0.482	0.168029788	NDUFAB1	3.398	0.057167135
PSIP1	0.316	0.009155557	ITIH2	4.467	0.003019504
IPO4	3.77	0.01759168	MTOR	5.02	0.034717955
TSR1	2.503	0.169169542	VAMP8	0.394	0.201476308
HBA2	16.943	2.38294E-15	PTPMT1	2.982	0.076889293
KRT19	4.403	0.000283845	URB1	2.648	0.338029555
THBS1	8.96	9.18289E-07	INTS7	2.17	0.54267803
KIFC1	0.466	0.347704775	DENR	0.41	0.363009333
GNAI1	0.437	0.283114559	PFDN1	2.389	0.277910191



HLTF	0.271	0.018963816	STX7	0.228	0.008654768
SOD2	0.328	0.007862366	TP53I3	3.082	0.13853348
HSPBP1	2.145	0.350857664	APOA1	5.934	1.37901E-05
FHL1	0.402	0.072725985	ATG9A	2.077	0.347327827
ABCF2	3.093	0.04979527	CRLF3	2.299	0.594970552
FXR2	2.047	0.472083894	TGOLN2	0.474	0.277910191
RPL26	0.108	7.85814E-10	DDTL	2.499	0.337412032
MAK16	2.014	0.382265331	ACYP1	0.172	0.000124406
QPRT	0.389	0.120541007	ICT1	0.499	0.477738196
MDN1	2.401	0.080123024	CKS1B	0.428	0.168029788
STAG2	0.464	0.318394554	TRMT61A	2.579	0.373487093
SLIRP	0.349	0.016266846	RRP7A	2.075	0.619359793
PDIA5	0.482	0.152265947	ELOVL1	0.253	0.009772286
PRRC2C	2.941	0.066888685	MGMT	3.151	0.049580009
SUN2	0.273	0.019029267	NDUFS4	0.449	0.291186521
SERPINB6	0.43	0.127818963	DNAJB12	4.898	0.002649718
UBXN1	2.043	0.36788067	HAGH	0.449	0.280121509
BRD4	0.398	0.208771883	SNX4	2.466	0.457766822
NTMT1	2.73	0.094843467	DR1	2.2	0.531680544
DDX56	2.121	0.358512609	ADRM1	0.357	0.077064988
CAV1	3.449	0.003620666	COX7A2	0.431	0.286250426
RIC8A	2.272	0.287945148	ALG5	4.115	0.05562428
CYR61	2.631	0.120541007	C12orf5	3.322	0.157341961
SPR	2.188	0.389076449	PIP4K2C	2.401	0.532263813
HADH	0.24	0.000436456	CNRIP1	2.104	0.600683038
GRWD1	3.644	0.016661319	GOPC	2.207	0.54267803
B2M	0.108	6.18969E-10	OTUD6B	5.437	0.005067108
RPLP1	3.184	0.007011563	STK3	0.483	0.304207987
AP3D1	2.141	0.345873133	TGFB1I1	3.696	0.174587085
UQCRH	2.037	0.273888949	SULT1A1	0.41	0.208979483
HN1L	0.399	0.117307912	UQCRQ	2.753	0.127818963
HPCAL1	0.394	0.168876787	CCDC90B	2.561	0.239400867
TRMT112	2.499	0.143269078	SLC25A15	2.621	0.190979545
FAM82B	0.487	0.405415556	CPD	16.679	5.2542E-13
BCAT1	2.362	0.227580262	ACAD8	2.15	0.427184048
ALB	4.644	8.7433E-05	CORO1A	2.153	0.398542775
EIF3G	2.003	0.302552867	RPS28	0.396	0.181142331
PSMB5	0.469	0.161911786	HBD	6.455	7.14796E-07
HSPA14	2.66	0.186369198	DCAF7	27.511	1.48106E-13
TUBG1	2.806	0.141756552	LSR	0.491	0.52011034
BRD3	0.367	0.102443218	PNPLA6	4.211	0.069519135
HK2	3.049	0.090965267	TRIM26	2.121	0.670992196
CDK11B	2.072	0.339162587	PAPOLA	2.827	0.084131043
NOC4L	2.166	0.315408003	JAGN1	0.05	4.81205E-10

EIF1	2.678	0.143490101	ACOT13	0.34	0.085332205
NLE1	3.002	0.07434411	SIRT1	5.018	0.035897899
CCNB1	0.454	0.305955953	MRGBP	19.046	8.83456E-10
RNF20	7.994	9.47683E-06	MRPL17	2.686	0.439439151
KDM1A	0.385	0.133551026	MECP2	0.484	0.301348862
TOMM22	2.481	0.133530691	LTF	5.176	0.000869373
GFRA1	0.491	0.382427321	VAMP7	0.411	0.133530691
METAP2	3.168	0.054307886	AK3	0.276	0.030100052
SRSF3	0.306	0.005457971	CCNH	0.355	0.255206945
NDUFA7	0.259	0.017486346	MPP5	2.262	0.521085499
FKBP2	0.425	0.172796936	FAM129A	16.453	4.74432E-15
ZNF638	12.449	2.18748E-08	SLC35F6	0.068	2.28187E-10
HMGNI	0.189	0.000989469	DCUN1D5	2.131	0.526655245
EIF4B	2.002	0.495603729	DERL2	2.028	0.429105575
MAVS	0.468	0.258627425	SELT	3.451	0.215786101
IGSF8	2.764	0.087521805	SLC12A4	2.219	0.315246266
GC	4.817	0.002027371	PIN4	0.256	0.018446495
DPYSL3	0.463	0.269109203	PPP1R13L	0.282	0.027069726
NUBP2	3.808	0.028425589	SNRPGP15	0.363	0.10339489
VTN	4.161	0.000388993	ELOVL5	2.394	0.226899603
CTR9	0.402	0.215993263	CDC42EP1	2.078	0.609917772
POLR1A	2.302	0.326545271	NRM	3.484	0.028269874
HSP90AA4P	2.24	0.409187249	ATG4B	2.704	0.440796879
PRKAR2A	2.715	0.131356806	TMEM55B	2.202	0.609917772
GNG12	0.325	0.018113953	TOLLIP	4.068	0.014101276
GLB1	2.591	0.153509077	NKAP	2.17	0.339763872
ADAM10	0.437	0.272296037	CASP3	5.35	0.00071505
SRP19	2.322	0.302424916	PRKRIP1	6.288	0.000762461
PSMB8	0.409	0.194570212	MRPL28	3.018	0.268584528
BZW1	5.441	0.000523917	CD63	0.328	0.073538376
RBM19	2.254	0.338029555	MRPL16	2.144	0.315408003
JMJD6	3.629	0.031254368	APOH	3.527	0.02253674
PFN2	0.465	0.196737931	DIAPH3	0.469	0.359762252
H1FO	0.212	4.75597E-05	PRMT3	2.372	0.418361852
VPS4A	2.01	0.480624893	GSK3A	2.751	0.422914247
PPP2R5D	5.209	0.007818504	SCARB1	2.227	0.32035195
EMG1	2.013	0.503007786	TARSL2	0.292	0.035897899
SERPINB1	0.491	0.336240687	RBMS3	0.402	0.178257612
CLPTM1L	2.534	0.175156132	SAP130	0.488	0.329998258
TYMS	2.708	0.310296376	TSPAN6	2.164	0.556107783
PAFAH1B2	2.149	0.410648327	TOR1A	2.131	0.652268691
CLPX	2.367	0.203398072	CNPY4	0.319	0.061677322
SARM1	2.271	0.49221404	SRP9	0.223	0.000438986
HBG1	53.375	1.07563E-16	HSD17B7	0.465	0.444761113

B3GAT3	2.36	0.291659624	S100A6	0.354	0.016496156
PURA	3.128	0.056796409	BKPyVgp5	0.435	0.181994008
UBE2D2	2.433	0.190924786	APOM	6.98	4.24533E-05
MRPS36	0.164	0.000320764	MED6	2.522	0.52426326
HMG2	0.033	1.07563E-16	CHCHD1	0.483	0.352436638
C12orf23	0.447	0.17554466	MRPL10	4.294	0.112120833
CAT	0.476	0.375037077	MRPL35	14.426	5.64647E-08
FADD	3.575	0.103969402	DIRAS2	15.855	1.41688E-14
POLR1E	2.209	0.394115397	HTRA1	0.338	0.185267174
F5	4.68	6.48222E-05	LXN	0.358	0.111223352
PTMA	0.349	0.024625365	RPIA	2.157	0.639653045
STK39	3.322	0.169897897	GMNN	2.496	0.408949484
EMC8	2.329	0.300941865	HERC4	2.14	0.463618358
HMMR	70.028	1.07563E-16	RAI1	2.455	0.410501186
SLC44A1	0.454	0.319413097	C4BPA	2.331	0.304233349
SLC30A1	4.081	0.016565483	RBX1	0.407	0.157341961
CDK6	3.011	0.212044223	CEP290	3.891	0.008500444
S100A13	0.445	0.120188055	RNGTT	2.699	0.127154153
UCHL3	2.105	0.382265331	HMCN1	0.417	0.27069171
UBE2S	3.059	0.060574845	SLC44A2	0.254	0.017823956
CHCHD2P9	0.188	0.001081533	MAN1B1	0.477	0.49221404
ATP6AP1	2.348	0.304135114	CD9	0.496	0.180605638
RBM42	2.185	0.400440429			