

Data Supplement

GPR19 coordinates multiple molecular aspects of stress responses associated with the aging process

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Table S2. GPR19 induced protein expression alterations in the plasma membrane (CE2) compartment. Significantly-regulated proteins (identified by official Gene Symbols) found in cells, differential between mock-transfection and the specific GPR19 expression level (0.5, 1, 2, 5, 10µg), are represented as a log2-transformed and normalized expression ratio between the specific GPR19 expression level and the expression level found in cells receiving empty vector transfection.

Gene Symbol	CE2 0.5	CE2 1	CE2 2	CE2 5	CE2 10
RAD50	8.396166	7.69871	7.083238	6.343929	7.324503
TACC3	5.255857	5.646168	5.230488	6.347601	4.998936
PGM3	5.856697	5.963834	5.085445	5.101395	5.409277
PDAP1	9.222202	8.955604		3.87075	4.442603
DIABLO	5.956536	6.117558	6.896559	6.473151	
COLGALT1	4.255547	4.442226	4.261642	4.248381	4.5388
UBA2	7.754652		6.813613	7.129645	
CLGN		7.256758		6.912912	7.304615
RPS24	5.218748	5.433923		5.209906	5.444566
FARSB	4.224168	4.234982	4.570312	3.002996	4.990068
RTN3	2.830226	4.197738	3.638109	4.835835	4.50803
MDC1	4.897054	3.58098	2.029585	5.436453	3.1684
ETF1	4.890324	4.824556	5.130607	4.003568	
CCDC6	4.36654	2.398018		3.744082	8.004424
DDX19A	5.441245	6.157138			6.622569
NAA10	4.573187	5.639501		3.14981	4.746903
GRB2	4.527323	4.485842	4.436292		4.659344
KIAA1524	2.59011	4.156684	3.005384	4.310237	3.836749
ANP32C	4.219499	4.218817	2.080707	2.471282	4.806223
DCTN1	8.396502		2.100582	3.739887	3.223941
GMPS	3.904269	4.159791	3.007207	2.588598	2.444054
COPS4	3.806237	4.614148		2.947247	4.438288
RIF1	8.395669			7.335939	
AHSA1	4.264408	6.039251		5.175856	
RRP9	3.0736	2.589998	3.621747	2.618888	3.381173
LTA4H	2.815766	2.892392	3.123152	2.605819	3.758297
BAG6	3.386025	4.516488	3.491089	3.374618	
TERF2	3.283414	4.624034	2.906634	3.870694	
NHP2	2.533864	2.560516	2.520298	3.648656	3.400519
PSIP1	7.232805				7.136455
SSU72	3.557537	3.097957	2.600004	2.923984	2.12216
KRI1	4.524278	3.83669		2.507333	3.299088
HN1	3.702839	3.502694	3.077645		3.847221
RANBP3	3.265385	3.449178	2.209416	1.777415	3.281335
ATIC	2.630077	2.766063	3.388891	2.269906	2.89886
TPT1	3.144038	3.478618	2.276382	2.254789	2.753835
PRPSAP2	3.077188	2.422165	2.700893	2.202787	3.381976

HSPB1	8.395398		2.782095	2.552177	
EEA1	2.85673	2.62576	2.973406	2.73763	2.421728
GPI	6.680979	6.906951			
KLF12		3.011002	2.833759	2.274424	5.329515
KLF3		3.011002	2.833759	2.274424	5.329515
KLF5		3.011002	2.833759	2.274424	5.329515
KLF7		3.011002	2.833759	2.274424	5.329515
MYNN		3.011002	2.833759	2.274424	5.329515
ZKSCAN7		3.011002	2.833759	2.274424	5.329515
ZSCAN16		3.011002	2.833759	2.274424	5.329515
ZSCAN2		3.011002	2.833759	2.274424	5.329515
ACTBL2	2.89498		3.911076		6.579158
ABCF2	2.759438	2.598108	2.845067	2.699784	2.391323
LSM14A	8.398797		1.642354	3.232209	
RPS10	1.36594	2.068691	2.635922	4.785406	2.155432
ANP32A	2.807105	2.850172	2.17328	2.199548	2.798892
MGEA5	2.911222	3.078775	1.826328	2.369549	2.559235
PSMA3	2.017553	4.06889	3.505596	3.14588	
PGP	2.84083	2.91989	2.143372	1.975463	2.667839
STMN4	8.396872		1.458049	2.606697	
NSF		4.198847		4.490125	3.667606
REXO4	8.399349	3.744074			
BLVRA	3.132613	3.233212		2.617496	3.08048
HDAC2	8.395493	3.665376			
NPEPPS	3.345038	3.752324	2.212608	2.704853	
CHCHD4		3.589819		4.102385	4.160435
WDR6	2.815243	3.816346	2.16487	2.989692	
MSH6	2.762846	2.957977	2.896963		3.017527
CTTN			2.866922	4.860484	3.817058
CUL4B	3.154114	3.013078		2.628965	2.710734
DDX51				6.285229	5.18558
FLNB	2.663663	2.754046	1.543499	1.975149	2.407077
EIF4A1	2.112437	2.434614	2.537098	1.611386	2.6457
TMSB10	2.358047	3.15616		2.113698	3.636859
ATAD1	8.39645			2.62197	
NUDT5	1.554188	2.607565	1.868897	1.852188	3.08241
CTPS2	5.507572	5.451168			
ASNS	2.708524	3.149188		2.353701	2.572353
EIF3B	2.291517	2.446221		3.424307	2.447734
ESD	2.936422	2.585656		2.271308	2.731271
MTHFD1	2.933236	3.364453	1.966768	2.130307	
DBI	2.585513	2.694352		2.099327	3.007038
SMNDC1	8.398417		1.918355		
YWHAH		3.636871	3.743545	2.875597	
TSPYL1		4.12942	2.117655		4.002969

TOP2B	4.057183	3.388927			2.767654
PSMA2	3.189391	3.625871	3.235108		
DBNL	2.477241	2.689188	2.181023		2.682106
C12orf43		3.361569	3.543783		3.081793
ATF1	2.544336	2.539029	2.654205		2.245269
CREB1	2.544336	2.539029	2.654205		2.245269
CREM	2.544336	2.539029	2.654205		2.245269
TUBB3	8.395337		1.570525		
RGS10	2.78774	2.96248	2.127421	2.082464	
GLO1	2.543639	2.627275		1.79655	2.967073
TKT	3.254846		3.348993	3.296897	
STRAP	2.467938	2.649202	2.640798	2.001073	
ATP1A2			2.322769	4.28073	3.06016
HIST2H2AA3			2.083622	4.715684	2.783803
PFKP	3.171084	3.09114			3.290698
CAD	2.682196	2.644532		1.851236	2.342075
TRMT6	2.405282	2.789246		1.889109	2.337332
EIF4G1		2.235987	1.727318	3.032223	2.271037
NUP50	3.44336	2.277269			3.482992
SART3	2.044567	2.726008	2.262118	2.105084	
ADSL	2.399793	2.613935		1.785176	2.321479
VRK1	2.106812		2.177151	2.355274	2.442467
NMT1	3.506067		2.61793		2.714857
RAB11FIP1		2.641627	3.469086	2.678778	
ANAPC7	2.82991		2.982728		2.908205
ARL3	2.062439	2.208102		1.794842	2.620009
AP1M2		4.23929			4.427896
PSMC3	2.874807	3.243435		2.506897	
GSTO1	3.12412	3.250886		2.190064	
HAT1	2.655587	2.98603			2.920157
IMPDH2	2.106161	2.519863	1.882199		2.026422
RPS19		4.045033			4.455749
CBR1		3.065652	3.284494		2.100458
CBR3		3.065652	3.284494		2.100458
TXNDC12	8.397056				
STX18	8.39644				
WIZ	8.39617				
TOX4	8.395991				
DDX52	8.395844				
FDFT1	8.395719				
RIC8A	8.395663				
PDE9A	8.395463				
FAM21D	8.395418				
RNF14	8.395376				
C5orf24	8.395375				

WDR3	4.357123	2.050935			1.931114
ADNP	2.088494		1.365711	3.057401	1.812595
CPNE3	2.254952	2.291597		1.594939	2.172848
ARHGDIA	1.802579	1.656896	2.485199		2.318728
NAE1	2.288575	2.383351			3.505206
TNPO2	4.066277				4.047242
PFKL	3.055048	3.022286		1.980592	
DYNC1LI1		2.781648	2.636195		2.509732
DYNLRB1		1.400357	2.021666		4.359371
HMGN2			1.925437		5.701539
PAK1		3.583922			4.001088
CUL4A	2.822311	2.557187		2.192953	
BLVRB	2.613873	2.691149			2.246742
RRM1	2.327804	1.518488	1.545126		2.123231
IK			1.837014	1.870852	3.731015
CDC27				3.722954	3.671455
FKBP1A		3.971498	3.326964		
IDH1		3.180389	1.80409		2.286727
SRCAP		3.916234			3.249127
CCDC124	2.154575		2.730384	2.260632	
HMGN1		1.260303	1.615465	4.202282	
RAB5A				4.87823	2.154035
ANXA6		3.524212			3.496774
NSFL1C			2.492627	1.815971	2.67758
SUPT5H		2.606333		2.052731	2.242365
H2AFX		2.344584			4.554693
OSBP	3.503244	3.39253			
NCAPH	2.622689				4.26361
SDHA			3.77281	3.091626	
TBRG4		3.949745	2.882558		
GSTP1	1.831634	1.88716	3.100771		
SMS	2.342579	2.89901		1.570894	
PPAN			3.116608		3.68206
PSME3	1.675126	1.972155	3.035634		
ILK				3.172317	3.458382
PFDN2	2.296509	2.473959		1.773901	
PHPT1	2.115589	2.263457		2.154205	
EEF1D	3.248443	3.264089			
SMN1				4.286629	2.1458
SMN2				4.286629	2.1458
NDUFS8				3.055673	3.338904
PRMT1	2.142419	2.22586	2.010731		
UCK2	1.61479	1.611933	1.854843		1.19442
RPIA	2.937837				3.250943
PIN1	2.208864			1.713509	2.240623

EIF5	1.42314	1.502995	1.609835		1.550721
IKBKAP		2.322042			3.750714
DDB1		4.282996	1.675605		
IWS1	2.580707				3.364823
FERMT2	2.110109	2.277672		1.52274	
RPL3L	2.500626		3.394207		
SMC4			2.669424	1.960001	1.252565
PSMA4	2.328312	2.331153	1.218382		
MCM3	1.542041	1.402712			2.891169
NPEPPSL1		2.245471	1.864875	1.628121	
NASP	1.579377	1.254726	1.565387		1.269363
NAP1L4	2.848959		2.765722		
USP5	2.758499	2.834105			
CIRH1A		2.703142	2.87378		
STAG2			2.264161	3.310964	
NDUFAF3	1.924381			1.6416	1.872009
TXNDC17	2.625698	2.797193			
EIF2S1			1.6592	1.781232	1.970866
CANX			2.048367		3.360125
PSMC2		1.355187	2.211635		1.832703
EIF4G3	2.666532		2.630139		
CIAO1			2.643759	2.580158	
GLYR1			3.314392		1.889903
TPM4	2.154613				3.030962
NPLOC4	2.237215				2.913432
RAB35				5.135311	
DNAJC8	2.775094				2.360196
TBCB	2.823318	2.290626			
AK1	2.498222	2.590154			
DISC1	2.109011	2.937282			
TRAX	2.109011	2.937282			
TSNAX	2.109011	2.937282			
BRIX1			1.222172		3.770992
GLOD4	3.679702		1.309835		
CHD5	2.343682	2.599169			
CDKN2A			2.522094		2.41989
CDKN2B			2.522094		2.41989
HIST2H2AC			2.083622		2.783803
LDHA	2.376643		2.46049		
RGPD1	1.732433	1.693463			1.362749
FLNA					4.705229
AHI1				4.682157	
MAGOHB				4.616539	
HBS1L			1.60252		3.003525
KIF5B	2.305372	2.270194			

TUBA1B	2.256509		2.315176		
TBCE		2.205085			2.339361
COQ9	2.333146			2.18664	
CNN3	2.500506		2.009336		
MSH2	1.411942	1.427824			1.584785
POLR2A	2.577901				1.835639
MTA1	1.622628	1.155342		1.597278	
PPME1				1.582711	2.783411
XPO5				2.242301	2.119539
LCP1			2.250931	2.090113	
PDHX			1.674125		2.664591
NUP153	2.100429				2.220596
TCERG1	1.11115		1.651533		1.556375
MYH14		2.370724		1.920797	
SMC1A	1.250903	1.348833	1.667524		
DDI2	2.648164			1.607718	
DAP					4.253544
BAG2				4.225133	
CLN6				4.162955	
NANS	2.025002				2.132202
GPATCH4	1.146351		2.907607		
ACAT2	2.076233			1.947391	
CIAPIN1	1.517181		2.490515		
DKFZp686E0752			2.100582		1.888466
RBMXL3	2.045071		1.924122		
CDV3					3.942235
DKFZp586I031				3.84153	
TUBA1A	2.337513				1.446373
RBM25			1.927971		1.848004
LMAN2	1.141305	1.104857		1.52613	
PPM1G			2.06745	1.678038	
GTF3C5	3.601875				
PAK2					3.578705
VBP1		1.757927	1.79784		
PYGL	1.804683	1.732025			
DSG1				3.506583	
ADH5		3.501293			
PSMD2	1.142714	1.114172			1.218004
RNF40					3.472232
ZNF346					3.468571
ELMOD2					3.452888
RFC2	1.818761	1.629611			
AKAP8					3.432349
PHKA1					3.425716
FLII	3.42069				

STUB1				3.419912	
ROCK2				3.410404	
ESF1	1.533084				1.866348
IGF2BP2				2.149886	1.234563
HDAC6			1.776288		1.597609
RBM3			1.508934	1.862118	
MAP1S					3.368592
EIF5B		1.418818		1.938088	
OMA1					3.346786
TOM1				3.336384	
PPIE				3.317107	
HN1L	1.739822	1.553986			
EMG1		1.805193			1.483146
SREK1					3.283596
ACADVL					3.273028
CFL1					3.271146
SCRN1				3.221957	
APEX1				3.201266	
TUBB4A			3.200282		
VEZF1					3.180091
CCDC86			1.070258		2.100729
TFCP2			3.154542		
UBP1			3.154542		
MYO1B					3.102331
AASDHPPT				3.088458	
MCL1				3.074545	
ANXA5			1.864747		1.200904
ATP2A3				3.063403	
RGPD2		1.693463			1.362749
PRKAG1				3.030451	
SERPINH1				3.009685	
SMARCB1					3.006108
LDHAL6B			2.990718		
UBE2N					2.980724
PPP1CB				2.95934	
MYH10	1.556372	1.367202			
HNRNPD					2.921809
CENPV		1.195371			1.713292
HMG20B					2.902378
TLN1			1.621591		1.253681
APOBEC3C				2.872783	
CCDC47	2.870649				
TOP1MT	1.105843			1.761203	
MKI67			1.527097		1.311735
RPL18A		1.367772			1.468623

UAP1					2.822279
SEPT9					2.814901
TMEM180		2.813605			
XPO7		1.381979			1.420289
DARS	1.134166		1.663665		
SLC9A3R1			1.582212		1.205664
UBL4A			1.567043		1.190246
SMC2		2.70295			
MORF4L2				2.684399	
QARS	1.311078	1.369517			
C3orf17					2.631293
HLA-B				2.608514	
HLA-C				2.608514	
DHFR					2.528393
CHORDC1					2.486938
POLR2E				2.457537	
DCTPP1					2.404791
HTATSF1			1.271637		1.124999
TUBA1C			2.373789		
ALCAM	2.367477				
GOLIM4					2.353958
RPE				2.347019	
PRPF3				2.341057	
TUBA1A			2.339691		
CPSF3	1.123438	1.207329			
PSMD6		2.317931			
PAFAH1B1		2.310399			
PSMC5		2.306194			
ERCC6L	2.299655				
RPLP0	2.273211				
STIP1	1.106559	1.164233			
SEPT2					2.25728
NIFK	2.255057				
HIST2H3A			2.253183		
PRDX4			2.252693		
QKI			2.247704		
TES	2.245258				
LRPAP1					2.242278
EIF3I				2.226455	
TSN		2.204109			
DDX23					2.202271
TPD52				2.193949	
ACTN1				2.184697	
TCEA1					2.178464
GDI2					2.177502

EIF2B2					2.168518
KIAA1033	2.097702				
ERCC6L					2.089868
PAFAH1B1	2.067439				
ANP32B	2.053316				
TUBA4A			2.042978		
PRPF4B			2.03932		
PSMD12				2.037397	
MDH1	2.024572				
DYNLRB2			2.021666		
MRI1				2.01823	
NUCKS1	2.016247				
CCT3				2.007019	
CBR4				1.989354	
KT112				1.964778	
SLC7A1				1.939308	
CDK12				1.932448	
NUFIP2				1.920692	
PSMD14	1.901163				
BAZ1B			1.894201		
ANXA7				1.893069	
GALK1				1.890616	
HNRNPUL1			1.889222		
CSNK2A1			1.87473		
LARP1			1.866332		
PRMT8			1.850692		
SNRNP200			1.844081		
RPL35A				1.83632	
RPS16			1.813713		
PARK7				1.811951	
UHRF1				1.806173	
TNPO1				1.778109	
TXNL1				1.764343	
ACTR3				1.761343	
UBBP4			1.758443		
PSMA8			1.756944		
ZC3H13			1.737082		
SETDB1			1.727491		
DHX36			1.697293		
NEDD8					1.692487
DDX39B			1.660506		
PRRC2A				1.633617	
GBAS				1.633366	
ARPC5L			1.632602		
HOXB9				1.62912	

MCM2				1.627222	
HSPH1				1.626328	
CBX8			1.61811		
PPP2R1B			1.616749		
FIP1L1				1.609962	
KIF4A					1.599431
APEH					1.583877
LUC7L				1.581412	
FXR1					1.580384
PRKDC					1.577578
SGTA			1.575902		
CARHSP1			1.57065		
DTYMK			1.566357		
METAP1	1.563878				
CHD3				1.562453	
FAM98A				1.557329	
EIF2A			1.551684		
DNAH17					1.548303
UBE2D3			1.529338		
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TARDBP	-1.19714				-4.18102
TMED2					-5.38251
SAFB	-2.16012	-1.3745		-1.85451	
TMEM33		-5.39322			
CPD		-2.70313	-2.70265		
TRUB1					-5.41943
TAGAP				-5.42428	
MAP2K3					-5.43039
MAP2K6					-5.43039
SH3BGR13		-5.44046			
COPS3		-5.48223			
BCL2L13		-3.32675		-2.17674	
ATAD3A	-1.60541	-1.15037	-1.52031		-1.24343
ATP6V0C	-2.73912	-2.78425			
BCAT2			-1.80275	-1.56661	-2.16978
GEMIN4		-5.54959			
ARID1A		-5.56581			
HNRNPH1					-5.59638
THOC2		-5.59912			
BCKDHA		-5.63313			
TMEM9		-5.68152			
TMEM9B		-5.68152			
PLIN3		-1.11877	-1.985	-2.60175	
RRP8	-1.70817				-4.00527
CD99		-5.71952			
U2SURP	-2.10316			-3.62931	
RPS25	-5.80139				
RUVBL1			-2.66818	-1.8059	-1.33291
ATAD5			-5.81575		
CD59				-2.14399	-3.67455
EHMT1			-5.84813		
MT1X		-5.85808			
MT2A		-5.85808			

NUP205			-3.55359		-2.33282
TRA2B		-5.89274			
KLC2			-2.66411		-3.23637
HSPD1		-2.79805		-3.12388	
HAX1		-2.69389			-3.2492
DDX47		-2.62691			-3.32607
SMARCA4			-2.73311	-3.22152	
C2orf47	-5.96365				
DHX40				-6.00532	
KDM2A				-6.05091	
RAP2A	-2.07935	-4.01827			
RAP2B	-2.07935	-4.01827			
RAP2C	-2.07935	-4.01827			
STRBP				-3.01574	-3.1323
NOL6	-2.55517			-3.61345	
PYCR2			-1.55106	-4.66974	
TMEM230				-3.00098	-3.23006
NOP2			-1.54071	-1.62757	-3.07817
TIMM50			-1.08509		-5.17657
MRPL48	-2.13757		-1.9629		-2.27709
HMGCS1		-1.30097		-1.8795	-3.21101
TMEM261		-4.09466	-2.30723		
COX7A2L	-2.06724	-2.24255			-2.1101
RSL1D1				-3.17901	-3.25101
TXN2		-2.421	-1.84366	-2.16848	
IPO5				-3.14492	-3.30814
FAM21A				-3.17259	-3.29602
FAM21B				-3.17259	-3.29602
FAM21C				-3.17259	-3.29602
COX7A2	-2.07222	-2.21869			-2.20402
RFC5		-5.41493	-1.10643		
NIT1			-1.2565	-5.35202	
NOSIP				-3.5572	-3.06229
MTCH2		-1.34063	-1.57513	-2.35446	-1.38127
STARD9				-3.06675	-3.61982
FOXK2				-3.53532	-3.1841
CSTF1				-3.15913	-3.56433
NAT10	-2.25839		-1.93023	-2.54465	
DHRS7	-2.28325			-2.20695	-2.26981
SPAG9				-3.06006	-3.71783
PTBP1	-3.70981			-3.09116	
NELFE				-3.10898	-3.69972
PAWR				-3.30653	-3.54287
RPL34				-3.53235	-3.33301
EXOC8				-3.3176	-3.55322

LTV1				-3.31905	-3.55864
KHDRBS2	-2.10822			-4.77704	
SUMO2				-3.14314	-3.74358
WFS1				-3.12814	-3.78196
MECP2					-6.92443
COA3				-3.80588	-3.15464
DDX39A				-3.01825	-3.94828
ASH1L			-2.69874	-4.29071	
MDN1				-3.63795	-3.36677
RFC4				-3.41543	-3.62315
MAGT1				-3.27053	-3.77396
PHIP					-7.05966
ESYT2				-3.42465	-3.64985
CMC2	-2.21818	-2.38715			-2.47959
CNN2				-3.18052	-3.95121
PTMA	-1.395	-5.75057			
WDR36		-2.84368		-4.30302	
LMNB2	-2.59598	-2.65637		-1.89723	
SLC4A1AP				-3.00956	-4.1833
RHOA				-3.13484	-4.07863
RHOC				-3.13484	-4.07863
TPX2	-3.08298	-4.16594			
NDUFV1	-2.99511		-2.43244	-1.84207	
YWHAG				-3.39118	-3.87865
INTS7				-4.07894	-3.1932
AP2B1				-3.24324	-4.07281
CLNS1A				-3.11551	-4.20326
SLC7A5				-3.17012	-4.14879
UQCRH	-1.45192	-1.17514		-4.70018	
RAB25				-3.17212	-4.15641
RRBP1				-3.56851	-3.77629
TBCA			-2.27609		-5.09262
IDH3A				-3.30479	-4.07024
NDUFAB1			-2.67535	-2.03737	-2.66465
UQCRB	-2.30159	-2.38262			-2.69701
NCDN				-3.49103	-3.89492
PTMS				-3.7107	-3.70088
FKBP10			-3.55708	-2.18462	-1.69113
AIP				-3.45806	-3.97713
PPP1R12A		-5.73357			-1.75707
RPL23				-3.24746	-4.25723
WDR44				-3.24214	-4.26653
CSNK1E				-3.12889	-4.39302
RBM17	-2.19874	-2.2254			-3.10311
RPS4X				-3.34056	-4.19123

RPL29				-3.28229	-4.2508
TIA1				-3.12812	-4.4088
KIAA0415				-3.64867	-3.89251
ATP6AP2	-2.33239	-2.67079			-2.53825
MT-ATP6				-2.29688	-5.24547
WDR41		-4.086		-3.47256	
GIN52				-3.3788	-4.20023
UQCRHL		-2.44412		-5.14707	
TTC19		-4.16135			-3.4374
ITPA				-3.45766	-4.16155
ABHD14B				-3.10897	-4.52472
WNK1				-3.36277	-4.29584
SLC25A3	-1.82749	-1.57369	-4.26902		
SAMM50	-2.2448	-2.26097	-1.07063		-2.17178
MTX1				-3.68037	-4.07373
CKAP2				-3.47532	-4.27892
PAF1		-4.00318			-3.78314
PRPF31				-3.39862	-4.41143
LIMA1			-1.84207	-3.71416	-2.28907
MCM4	-2.25471	-5.59441			
AP3B2		-4.5168			-3.34889
HRNR				-3.05084	-4.81883
CD2BP2				-3.43418	-4.45231
HNRNPK				-4.12255	-3.77508
RBM26				-4.73399	-3.16759
ILF3		-1.70511		-4.70543	-1.49148
PDCD5	-2.12104	-5.8223			
GTPBP6				-3.39885	-4.54457
PLCG1		-7.96511			
TRIP6		-4.24489		-3.7342	
AKR1B15				-3.45482	-4.53834
SLAIN1				-3.95419	-4.09425
PEX19				-3.47768	-4.5816
PTTG1IP				-3.8285	-4.23669
CDC37			-2.66621		-5.42974
GPR180		-4.13587			-3.96937
YWHAZ				-4.42053	-3.69965
FARSA			-4.02699	-4.1994	
GNL2		-4.31173		-3.93002	
PSMD4				-4.61839	-3.62627
LDHAL6A		-8.25561			
MT1G	-2.40236	-5.85808			
MAP1B		-4.05975			-4.20494
DNAJC10		-4.30739		-3.96035	
DDX27	-3.1148		-3.22569	-1.92927	

LSM4		-5.25875			-3.01484
RAB11A				-5.04698	-3.23679
EIF3K		-3.00265		-2.74588	-2.55473
H3F3C	-2.75761			-2.36342	-3.19092
RABGGTB				-3.53706	-4.7778
SRP9				-4.74538	-3.58857
NKAPL		-4.88678		-3.46807	
PLAA		-4.31177		-4.07584	
PTGES2				-3.66506	-4.72322
YWHAQ				-4.08177	-4.35623
HMOX1		-5.7123	-2.73206		
HIST1H1C			-2.40476	-6.08997	
COX6C	-2.81842		-1.71594		-3.96451
CKAP5				-3.74204	-4.76417
GUK1		-4.49596			-4.06162
SBDS		-4.84746		-3.72805	
AMOTL1		-4.14956			-4.42853
ANXA2		-4.839		-3.74508	
BTF3		-5.63142		-2.96992	
CBS	-1.63566	-5.75762			-1.23532
COX6A1	-3.98046	-4.65076			
AGO1				-8.65215	
AGO2				-8.65215	
SRSF7			-1.13101	-3.43668	-4.08921
PDIA4				-3.93264	-4.74989
SLC25A1	-1.50294	-5.60842	-1.60133		
CISD2		-2.35429	-2.07909		-4.31148
GART				-5.25238	-3.51233
MAP2K2		-4.05906			-4.71988
GIN51		-4.85955		-3.95648	
PUM1				-4.8133	-4.01103
PUM2				-4.8133	-4.01103
TROVE2		-4.14842			-4.68103
CYC1	-2.15197	-2.23469		-1.92864	-2.52988
TMUB1		-5.05682		-3.82673	
CHEK1		-4.51662		-4.38117	
MRPS14			-2.12948	-3.51832	-3.25495
C1orf131		-4.53457			-4.39226
CDK9		-4.87376		-4.0882	
IST1		-5.13033		-3.8535	
CCDC40			-4.82984		-4.16978
GLMN				-5.04418	-3.97501
HP1BP3			-3.14241	-5.88943	
SAP18	-3.49771		-2.18656		-3.35724
RPL8		-4.84678		-4.20286	

GTF3C2		-4.60952		-4.45098	
H3F3A	-2.12328	-2.23795		-4.71127	
H3F3B	-2.12328	-2.23795		-4.71127	
SYNGR1		-5.02074		-4.07627	
OGT		-4.92156	-4.24194		
BRD4		-5.02508	-4.14031		
RPS15				-4.86189	-4.30683
NEFH	-2.87052	-4.17303			-2.16106
NEFL	-2.87052	-4.17303			-2.16106
TPM3		-4.39601			-4.82147
HBA1	-2.50671	-2.53685		-1.56821	-2.62687
SUB1		-5.57142			-3.69733
VDAC2	-2.30841	-2.82183	-1.81102		-2.38939
RANBP9				-4.73833	-4.60493
RRAS2				-4.17827	-5.17082
DKFZp434B156		-4.63979			-4.71204
WDR92		-4.63979			-4.71204
SEC62				-4.84079	-4.55023
VDAC1	-2.53362	-2.92457	-1.78329		-2.15886
ST13				-4.78378	-4.63474
SOAT1		-3.49965	-3.48529		-2.46681
RUFY2		-4.60552		-4.88068	
GPATCH11					-9.49448
RBM39		-4.49496	-3.17059	-1.83783	
LMNA	-3.79581		-5.72582		
RAC2		-5.57203		-3.96436	
RHOJ		-5.57203		-3.96436	
RHOQ		-5.57203		-3.96436	
CEP41		-5.141			-4.42394
YLPM1	-2.45473	-5.40533			-1.71539
SF3A2		-4.4419			-5.13753
CTBP2				-4.49793	-5.16507
PPHLN1		-5.10481			-4.57532
HMGA2		-3.65848	-6.02335		
TNPO3					-9.70358
HBA2	-2.72749	-2.92646		-1.61603	-2.4367
TRIAP1		-5.35211		-4.35707	
RPS27L		-5.29828		-4.42754	
ARL2BP		-4.7356			-4.99929
HM13		-5.05068			-4.69261
MGST3	-3.14725	-2.9052		-1.57709	-2.11466
DNAJB2		-4.84711			-4.9008
DNAJB8		-4.84711			-4.9008
DNAJC11	-3.65274	-3.00881			-3.1818
PPARGC1A					-9.84385

CLTA		-5.30729		-4.54192	
HGS		-5.25833		-4.5978	
SF3B3				-4.62915	-5.25897
EPS15L1		-2.87605	-7.09056		
PES1		-5.55959		-4.42919	
CRYZL1				-4.83561	-5.18759
SKIV2L2				-4.69759	-5.35572
MEPCE		-5.42665		-4.63997	
TFRC		-5.57094		-4.49902	
RBM28				-3.00508	-7.07548
NUP98		-5.01518		-5.07406	
KPNB1	-3.16513			-3.0591	-3.90285
FSCN1		-5.6395		-4.49059	
DDX4		-4.80487			-5.36272
MRPS28		-5.12944			-5.08914
LSM8				-4.97028	-5.25816
CPSF7		-5.69817		-4.5391	
RAB1C	-5.91716		-2.5459	-1.79511	
NCL		-5.16809			-5.13221
STX7		-5.65907		-4.68951	
MT1E		-5.65408		-4.70997	
MT1M		-5.65408		-4.70997	
CDCA8			-5.2425		-5.13705
CHAMP1	-2.23695		-2.9058	-2.21022	-3.02848
WDR18		-5.24793			-5.16225
RRP12	-2.08871	-4.06382			-4.26062
GNG5		-5.57425		-4.84613	
FAM175B				-5.1112	-5.32811
SNW1		-5.64928		-4.80456	
PLD3		-5.40644			-5.06644
RAB11B				-5.04698	-5.45634
DDX56			-5.34119	-5.17294	
WHSC1		-5.16936			-5.36385
VASP		-5.70242		-4.8337	
RNF2	-2.33388	-2.36074		-1.98143	-3.86897
EIF4G2		-5.48206			-5.08561
MRPL17			-1.97804	-3.95169	-4.64126
HMGN4			-2.72288	-7.87682	
MTDH	-1.90429			-3.49204	-5.22578
MOV10		-5.68855		-4.93964	
UBE2Z		-5.697		-4.94406	
RPL36AL		-5.67877		-4.96381	
39692		-5.68145		-4.96534	
UBE2M		-4.54843	-1.93107	-4.1678	
EDC3		-5.75713		-4.90637	

COX6B1		-5.9008		-4.83895	
SLC1A5		-5.35869			-5.40056
BZW1		-5.44741			-5.33136
RBMX		-5.53896			-5.2477
COX7C		-2.76849	-2.31884	-1.65038	-4.06832
DLST	-2.48366	-2.4251	-2.5143		-3.39986
TCOF1	-1.45164	-4.49974			-4.93249
POLB		-7.79241	-3.1356		
SNRPC		-5.67795			-5.37456
MRPS18B	-2.90244	-2.86728		-2.89248	-2.41458
SUMO3		-4.06265		-3.18767	-3.89006
UQCRCQ	-2.11449		-4.67424	-1.56468	-2.81289
GAA		-4.06222		-3.24698	-3.85976
HK1		-4.09056		-3.54464	-3.55586
SUGP2		-4.41057		-3.24987	-3.54935
RBX1		-5.77827			-5.44682
RPL28		-4.23497		-3.82166	-3.18338
ZMYND8		-7.02508	-4.37559		
RPL31		-4.06908		-3.75689	-3.62684
HADHB		-4.07579		-3.30736	-4.07987
PELP1		-4.07796		-3.23482	-4.15884
RPS11		-4.09635		-3.86837	-3.59124
ARF4		-4.09117		-3.37664	-4.0977
TEX264		-5.50303		-4.673	-1.51501
SON			-1.91385	-4.93533	-4.85748
RAB1B			-2.13808	-5.01685	-4.60889
CHP1		-5.28051		-3.95732	-2.56045
FAH		-5.1045		-3.01662	-3.75371
DDX54		-4.23121		-3.12502	-4.52775
NOLC1	-1.35961	-5.73305		-4.85054	
RPL36A		-4.42927		-4.15136	-3.36456
P3H1		-4.0658		-3.24516	-4.64703
LEPRE1		-4.0658		-3.49117	-4.41562
APIP		-5.75006			-6.28807
DPP9		-4.628		-3.3206	-4.09365
PPIH		-4.06963		-4.36541	-3.63771
COASY		-4.06602		-3.46803	-4.55141
MARCKS		-4.3254		-3.57386	-4.22823
NIN		-4.08223		-3.45684	-4.63058
SUCLG1		-4.25366		-3.38215	-4.55791
NDUFA2				-5.37595	-6.82106
SAR1B		-4.30769		-3.1988	-4.73889
ATXN2L		-5.6015		-4.98815	-1.71639
MPP6		-4.22852		-3.31354	-4.81562
REXO2		-4.14807		-3.63487	-4.6216

SEC31A			-7.1201		-5.3122
TSPAN6	-3.15139	-3.43666	-2.16084		-3.84898
MINOS1	-2.92028	-3.00144	-1.87482	-1.84714	-2.97948
UTS2		-4.74526		-3.31108	-4.57745
TOMM40	-3.06733	-2.23684	-4.87165		-2.46254
NDRG3		-6.44112	-6.21141		
RPS23		-5.02267		-4.46723	-3.22179
TIMM9	-2.7743	-3.23198	-1.96532	-1.54536	-3.19724
ATP5D		-4.71738		-3.42953	-4.59229
RCN1		-5.86473	-5.18567	-1.7513	
SRPK3		-4.3332		-3.73565	-4.73814
POR		-4.53556		-3.72029	-4.60571
LDHC		-4.32451		-3.8309	-4.71956
SEC63		-4.76043		-3.75306	-4.40971
BRD2	-2.34625	-2.28683	-3.44393	-1.57751	-3.31565
EIF3G		-4.03649		-4.68852	-4.31772
GSTM2		-4.6047		-3.66107	-4.8046
GSTM5		-4.6047		-3.66107	-4.8046
PCBP2		-4.24451		-4.34613	-4.57209
RPL10	-2.01409	-5.72739			-5.44023
FAM136A	-2.05619	-4.64206	-1.89956		-4.64167
STIM2		-4.89143		-3.65666	-4.77094
GIPC1		-4.5397		-3.82047	-4.97017
DHCR7		-4.39681		-4.15341	-4.79363
LAMP1		-4.47683		-4.07177	-4.80425
AKAP12		-4.41787		-4.0751	-4.91019
DEK		-5.78112	-1.94338	-1.8031	-3.89237
GFAP	-2.64665	-4.53738	-3.99645	-2.26319	
C11orf98		-4.16106		-4.73401	-4.58209
CUL3		-4.38649		-4.38975	-4.7468
RPL37A		-4.49149		-4.30362	-4.73411
GNAI2		-5.05678		-3.81338	-4.69627
MECR		-4.9728		-3.75859	-4.87063
OXCT1		-4.63161		-4.13724	-4.86413
SEC61A1		-4.66178		-4.28688	-4.71282
SEC61A2		-4.72953		-4.28688	-4.76385
CAP1		-5.38433		-5.23839	-3.20845
UGDH		-5.01554		-3.7477	-5.08656
SDAD1		-4.25271		-5.14734	-4.45345
PTBP2				-7.02535	-6.8366
IDH2		-4.95027		-4.18505	-4.72868
TOMM22	-2.28308	-4.30146	-2.08185		-5.20308
ATXN2		-4.52649		-4.69733	-4.66636
EIF4B		-4.7178		-4.38881	-4.78759
PNPT1		-5.0439		-4.17426	-4.70661

CHMP1A		-4.42856		-4.70928	-4.82755
SNRPD2		-4.05667		-5.22175	-4.72206
MMS19		-4.49643		-4.49933	-5.03348
CDC42		-4.92876		-4.28839	-4.86137
HARS2		-5.03531		-4.04506	-5.09817
MRPL12	-2.04634	-5.88883	-1.18183	-5.06965	
CLPTM1		-4.89544		-4.36164	-4.96857
WARS		-4.75253		-4.6263	-4.86475
ARFIP2		-5.10755		-4.2102	-4.95206
RPA2		-4.81456		-4.22974	-5.32955
CHMP2B		-5.13502	-2.03458	-3.13415	-4.08104
NDUFB11		-5.20045		-4.18187	-5.01165
EPHA1	-6.26831			-4.0743	-4.06859
DPM3		-5.25123		-4.27561	-4.89013
SLC35A4		-5.3384		-4.1907	-5.00722
RPL37AP8		-5.22795		-4.16979	-5.14358
FTH1		-5.22908		-4.45327	-4.86123
RDX		-4.14441	-1.64209	-4.38709	-4.40888
PICALM		-5.05316		-4.56811	-4.96402
ARPC3		-5.09544		-4.36831	-5.15753
DDX3Y		-5.08661		-4.54167	-4.99445
HCFC2		-5.26044		-4.33127	-5.08168
PTGES3		-5.30283		-4.39515	-5.07585
REEP5		-5.83261		-5.19482	-3.75053
RBM34	-3.8921	-3.50372	-2.50876	-2.1255	-2.74909
MATR3		-5.32108		-4.42417	-5.07043
UBE2C		-5.14944		-4.42236	-5.25073
PSMB7		-4.96915		-4.41089	-5.45651
HNRNPM		-4.70853	-2.98092	-3.54394	-3.60499
BCLAF1		-4.0649	-2.94167	-3.36038	-4.48002
UFM1		-5.19118		-4.40005	-5.2638
NEMF		-5.28942		-4.66339	-4.98257
IQGAP3		-5.52992		-4.20857	-5.21442
RPL13		-5.27446		-4.83607	-4.87123
DPYSL5		-5.27055		-4.44352	-5.27812
TARS		-5.45412		-4.40651	-5.16896
HGH1		-5.43261		-4.53145	-5.07159
M6PR	-6.04555		-3.98995	-5.0373	
GNB3		-5.3995		-4.58742	-5.11406
GNB4		-5.3995		-4.58742	-5.11406
RAD23A		-5.33987		-4.46506	-5.29901
40057		-5.46499		-4.50708	-5.14838
IMPDH1		-5.45426		-4.47254	-5.21175
EXOSC4		-5.42979		-4.48563	-5.23036
ATP1A1	-2.524	-5.66697	-1.60389		-5.41985

CAPZA2		-5.48623		-4.60675	-5.21904
MRPS5		-5.56579		-4.61271	-5.15872
UBL5		-5.33386		-4.69828	-5.3341
NPM1		-5.08287	-2.22782	-3.04395	-5.05716
ACTR3B		-5.7271		-4.39891	-5.32881
COMT		-5.71595		-4.57047	-5.18447
HDGFRP2	-5.26517	-5.70614		-4.50539	
SNRNP70		-5.57603		-4.68392	-5.22716
CKMT1A	-2.3101	-5.85969	-1.84		-5.50847
CKMT1B	-2.3101	-5.85969	-1.84		-5.50847
ADRM1		-5.44569		-4.69544	-5.391
RBBP4		-5.48494		-4.79432	-5.27444
RBBP7		-5.48494		-4.79432	-5.27444
CKMT2	-2.3101	-5.85969	-1.89499		-5.50847
SACM1L		-5.55736		-4.73477	-5.32369
DENR		-5.63939		-5.10305	-4.89386
RPL30		-5.54595		-4.76832	-5.32568
MRPL43		-5.66423		-4.75568	-5.23463
SNRPA		-5.56998		-4.84685	-5.24271
DDX46		-5.62514		-4.77444	-5.27114
SP100		-5.49745		-4.88202	-5.29697
YTHDF1		-5.5768		-4.77046	-5.37453
NUDT4		-5.64325		-4.72062	-5.37497
CS	-2.24014	-5.52664		-4.70282	-3.32916
SPTLC1		-5.56894		-4.85376	-5.38499
NEFM	-2.87052	-3.50362		-4.50024	-4.94739
STAU2		-5.60862		-4.83702	-5.37716
ARF5		-5.65143		-4.79241	-5.38654
PSMA1		-5.546		-4.84956	-5.43485
C14orf166		-5.6902		-4.79525	-5.35687
TRAP1		-5.62501		-4.88721	-5.33105
USP47		-5.63435		-4.90651	-5.32244
EIF4A3		-5.60138		-4.8479	-5.51706
ME3		-5.64892		-4.92704	-5.39613
RPS3		-5.70902		-4.85466	-5.43766
SNRPF		-5.73926		-5.14189	-5.33137
OPA1		-5.7994		-5.16309	-5.28601
TCEA2		-5.79077		-5.05073	-5.49063
PRPF40A	-1.68373	-5.18964		-4.61975	-5.10291
CD63	-3.44268	-3.69317	-3.23669	-2.8397	-3.47028
SF1		-5.22209	-2.19975	-4.36768	-5.07027
NOMO1		-5.51891	-1.09195	-5.13443	-5.27709
PRRC2C	-1.56179			-7.61845	-8.41453
PHB2	-1.86453	-5.74685		-4.81701	-5.25121
UQCRCFS1P1		-5.66671	-2.21142	-4.53859	-5.26609

DBN1	-1.28424	-5.11847	-2.24577	-4.05272	-5.01118
RUFY1		-4.60552	-1.68794	-4.88068	-6.5686
RUFY3		-4.60552	-1.68794	-4.88068	-6.5686
PLRG1		-5.75876	-1.86596	-4.91366	-5.24453
JAGN1	-1.59523	-5.78354		-4.99844	-5.42537
ATPIF1	-2.46938	-5.39197		-4.93296	-5.06111
TSC2		-4.64575	-3.29363	-4.72018	-5.23535
DKFZp434B2017		-4.30769	-5.75457	-3.1988	-4.73889
EIF3H	-1.49807	-5.56097	-5.60409		-5.36799
PNN	-2.17213	-5.66261		-4.92362	-5.37639
GLS	-3.29643	-2.92437	-3.29424	-4.94899	-3.70304
IMMT	-1.36714	-5.81508	-1.31111	-5.04069	-5.14899
YY2	-2.58352	-5.71604		-4.96666	-5.42228
NME1		-5.17076	-5.52859	-3.06628	-5.12523
YY1	-2.96481	-5.7204		-5.05237	-5.42446
CNNM3		-5.70257	-3.45691	-4.35879	-5.87534
SETBP1	-4.63812	-4.44592	-2.86359	-2.62184	-5.06662
ERH	-1.20376	-5.72022	-3.42412	-4.36445	-5.29725
EBP		-9.37221		-8.51453	-2.17
TLE4			-6.4333	-6.94597	-7.27674
SMARCE1		-4.75258	-4.76505	-5.00203	-6.13952
SLC25A24	-9.53643	-5.10331		-4.55124	-2.16841
NDUFS6	-2.35716	-6.13723	-2.40031	-6.16306	-4.64045
TJP1	-9.28902	-1.67118	-1.93635	-5.88508	-4.65555
NUMA1		-6.06183	-3.38665	-6.61923	-7.56077
CBX1	-9.43251	-4.51135	-3.71741	-3.66025	-2.40244
THOC5	-4.52908	-4.64561	-5.09969	-4.86277	-4.91247

