

Data Supplement

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

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Table S3. GPR19 induced protein expression alterations in the nucleus/organelle compartment (CE3). 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	CE3 0.5	CE3 1	CE3 2	CE3 5	CE3 10
TUBB4A		8.242553		9.351084	9.720522
GATC	4.763431	5.843191	5.230535	5.95175	5.139965
MTHFD1L	5.03443	5.13742	5.644408	5.359593	5.318951
CCDC47	6.64904	5.46689	2.513803	3.958372	4.654893
LIMA1	3.630153	5.926437	4.433989	4.187908	4.322675
MCM3	5.15333	5.730416	4.740339	4.30103	2.251686
EIF5	4.252595	4.66208	4.334015	4.067817	4.837141
RALA	2.673472	5.385117	3.319995	4.480454	5.551128
CBR1	4.910196	4.824799	3.654328	3.62262	3.660259
GDI2	4.133909	5.174894	3.27964	2.9253	5.060906
SRPK1	3.509229	4.74124	3.938798	4.00468	4.173394
ERLIN1	4.741597	3.575653	4.040991	4.015641	3.899485
LTA4H	7.371242		5.524087	4.151017	3.152365
HIST1H1B	5.153372		4.245155	6.479236	4.268037
CBR3	4.652119	4.7428	3.038877	3.437425	3.440067
ANXA6	3.739491	4.35529	3.968379	3.240796	3.430652
FHOD1	3.254352	3.08163	3.575376	3.525703	4.761413
RBM12	3.282013	3.917967	3.733188	3.135187	4.114262
PPM1G	3.614445	3.266735	2.987266	3.633269	4.47674
LYZ	4.050207	7.279965	2.903863		3.640887
HNRNPUL1	3.309534	3.296412	4.089483	3.557651	3.60201
TMED10		5.20399	5.339811	2.053773	5.199549
BASP1	3.070783	4.488964	2.960233	2.693557	4.387876
TPI1	4.536716	3.228897	3.653853	2.26586	3.692306
APEX1	2.423478	3.811718	2.763255	3.836632	4.454563
SRI	3.159661	3.461419	3.887171	3.301778	3.45776
HMGB1P1	2.663372	4.085604	2.788801	3.244377	4.444233
NANS	3.985236	4.016078	3.777602	1.69122	3.484526
PIN4	3.67267	3.855606	2.676915	2.657228	4.092039
ANP32C	2.171014	5.602177	2.783149	2.810144	3.047979
TMCO1	3.686299	3.68318	3.757187	5.152776	
TIMM9	2.999216	5.312369	2.925118		5.002195
GSTP1	3.802009	3.149388	3.483972	2.692793	3.048374
NUDT5	4.856675	4.268794	3.339577		3.395648
GARS	3.973393		3.990592	4.839776	3.031165
SFXN1	3.357896	3.876133	2.544774	2.179812	3.869542
CAND1	3.160578	3.135602	6.565578	2.742497	

ANXA2	2.308101	3.659746	2.700853	2.887266	3.966553
CBS	1.792039			6.011221	7.48202
SNRPD1	2.776892	3.352057	2.792276	2.74869	3.319625
TERF2	1.623507	4.378224	2.412714	3.111162	3.357781
DENR	2.589578	3.110343	3.158672	2.206059	3.798974
PDCD5	2.711168	3.370536	2.413948	2.796229	3.505163
NOP10	2.060649	4.05616	1.938515	3.142824	3.405095
KCTD12	1.901425	3.771931	2.719482	2.728295	3.420602
FKBP8	4.383028	3.488797	4.267455	2.382108	
TOMM20	2.550239	3.245288	2.597236	2.452746	3.519299
SLC25A13	3.23801	3.382695	2.205765	2.339206	3.181024
IQGAP1	2.123156	3.953605	2.301094	5.605098	
CHORDC1	3.321023	3.302629	2.795494	2.221963	2.316037
NSF	2.024865	4.62273	3.971449		3.331813
NNT	4.259772	5.234429	4.391215		
EDF1	2.401201	3.337021	2.380935	2.264412	3.1695
PRDX6	2.872932	4.016294	3.05323		3.566438
RPS16	3.218792	3.35739		3.196021	3.648465
NUCKS1		4.290982	2.29826	2.650762	3.97859
PSMD7	1.545583	2.870938		5.040378	3.569159
ILF3	2.052741	3.563401	2.248815	2.551532	2.465893
AP1B1	2.388375		3.026677	3.517103	3.935037
PEBP1	3.273944	3.194521	2.476725		3.862371
NAP1L4	4.52622		3.119953	5.121954	
STMN2	2.481092	3.505233		2.732641	3.946908
CDC37	3.770923	3.077037	2.712773	3.074254	
SUB1	2.300934	3.356013	3.479484		3.439905
ADSL	2.517647	2.556399	2.701169	2.399824	2.316947
RANBP1	4.90823	2.528558		1.937098	3.090749
COX15	3.338216		2.732697	2.510183	3.813923
SMARCE1				5.413995	6.936602
MTA1	2.548527			4.226531	5.446669
HPRT1	2.003431	3.622363		2.835459	3.756227
PKN2	2.880802		3.065371	3.08492	3.176683
UQCRFS1P1	2.627822		3.050946	2.397009	4.094705
PABPC1	3.376748	3.159149	2.579701	2.9656	
ABCF2	5.811469		6.260582		
NIP7	2.100753	4.442407		2.195083	3.189934
PSMB1	3.184728	3.152704	2.929735	2.612459	
DDX42	1.614998	3.018263	2.059933	2.264568	2.871579
RBM26	2.15901		3.001943	3.444488	3.144235
TPD52	2.30848			4.505419	4.80179
CDKN2A	3.119843	3.60611		2.449068	2.404401
DUT	2.43142	3.879403		1.67067	3.485811
AKR1B1	3.419202	3.869911			4.167174

UCHL1	2.431931	4.250201			4.773927
CSDE1	4.636607	3.033983	3.770317		
ZYX	3.877549			3.453583	3.900944
NUDC	2.978481	2.655575	3.02655	2.557965	
SKP1	2.783513		2.763657	3.245967	2.423788
STARD13	2.630626		2.984814	3.636994	1.929293
SDF4	2.490026		2.78236	3.415768	2.317722
RAB6A		3.447894		2.750617	4.736682
TDRKH	2.751986		2.527383	2.715188	2.820129
GBAS	2.236065			2.268151	6.241393
DSG1		5.979821		2.708999	2.045148
RAB6B		3.447894		2.633126	4.602091
NMT1	1.932869	4.575278	2.209692	1.927036	
FHL1	3.325759	3.400726	3.884692		
CRNKL1	3.096827		2.352975	3.093123	2.05168
USP34	1.735766	3.563102	3.163682	2.11946	
GPS1		7.063828	3.512519		
NCBP1	2.839423		2.479855	2.659017	2.522733
EXOC3L4	2.37739		3.484739	2.351166	2.213082
MPHOSPH6	2.446221		2.333557	2.775983	2.753292
RBM17	2.205135		2.812746	2.703947	2.584915
P4HB	1.518037	3.485762		3.073572	2.195795
ACTR2	2.33097	2.907762	3.106009		1.908381
TIMM13			2.693907	3.364056	4.161816
PFDN2	2.941764	2.868864		2.044244	2.33969
TMCO1				3.699889	6.363362
HMOX2			3.779731	4.239977	2.036748
PDIA3	1.999607		2.751754	2.838457	2.446141
FAM96B	2.238979		2.466421	2.812071	2.501653
ACSL3			2.114419	4.521291	3.28862
SCAF4	2.225364		2.292259	2.153716	3.239632
SRSF7	1.578827			3.826176	4.460825
ALCAM	1.761659	3.420197	2.247822		2.417631
CALM1	2.243569		2.37897	2.954063	2.069066
SAFB	2.388361		2.178701	2.131884	2.907055
CAP1	2.493121		2.35188	2.716527	1.979327
GART	3.024337		2.43422	2.121082	1.915489
DYNLL1	2.417682	3.007906	2.003058		2.007872
SSBP1	1.532669	3.209003		2.393223	2.25948
GNB2L1	2.348412	2.589572	2.593452		1.783433
AKR7A2		4.006895	2.149501	3.14305	
RBM4	2.161582		2.63853	2.561265	1.856834
ALDH1B1	2.727469			3.086537	3.368817
LDHA	2.273628	2.898453		2.15447	1.798486
GSTO1		3.005323		2.537045	3.541855

PSMA5	1.957143			4.056486	3.056311
UQCRQ	3.153111		3.371798	2.510616	
HN1L	2.666766	2.430175		1.88859	2.036972
OCIAD1		3.147393		2.458012	3.410539
PGRMC2	2.008998		2.229268	2.424186	2.334954
DDX18	4.590466		4.310728		
CSTB	2.761996		2.598097	1.623387	1.839498
TIMM10B	2.58872		3.096328	3.107261	
CA2	2.870022		2.295799	1.833711	1.718721
AFG3L2		4.464799			4.228582
TMA16	2.495131		1.950916	2.109972	2.115403
APP	2.310159			2.624403	3.665709
SRCAP	2.436201		2.518214	3.549004	
RBBP4			2.181494	3.446305	2.845
PLS3	1.780727	2.573552	2.46333	1.569557	
PPP1R12A		3.297794	2.374605	2.699813	
CPT2	2.606142		2.640206	3.010849	
TNPO1	2.641196			2.069971	3.500907
MAT2A	1.858518	2.523125		1.753231	2.075498
SNX27			2.795569	2.711297	2.685207
SMARCB1	1.645532		1.956902	2.015545	2.532361
PSMD1	2.787046		2.086426	3.123025	
ETF1	2.917977	3.157897		1.902054	
ZRANB2		3.343242	1.927306	2.635135	
PACSIN3	2.356966		2.507978	3.03769	
YWHAH	2.089552	3.409867	2.333325		
GRHPR		3.392176		2.097906	2.341322
PSMA8	2.054712	3.637178			2.127227
PPA2				3.95158	3.854381
HINT1	2.84078			2.270888	2.674395
NDUFS2	2.26182	3.080232	2.427733		
CPSF6	1.998553	3.034406	2.714343		
HDGFRP2	2.535347		2.21542	2.987821	
MYL12A		2.558908	2.996801		2.007677
MYL9		2.558908	2.996801		2.007677
ANXA5	3.476821				4.081206
UGGT1				3.693257	3.788686
PDHA1		3.938837			3.524289
EPB41L2		3.167772	2.057228	2.234527	
HDAC2		3.140277		2.097403	2.15282
NDUFS5		4.017659			3.362489
SPTLC1	2.486707		2.520369	2.338684	
SLC25A24	3.6445		3.690906		
WDR5		2.575757	2.991702		1.747565
BPTF				3.211157	4.071586

TMEM201	2.151654		2.131159		2.998632
UBA2	4.251832			2.939574	
EIF4H	2.794319	2.41855		1.973526	
EHD4	2.489073	2.69431		1.984306	
SNRNP70	1.826642		3.11858	2.169871	
MTX1	2.394999			2.656181	2.045594
NDUFV2		3.557369		3.500068	
HMG5	2.602247			2.295152	2.120885
SOD1	2.48908	2.681171			1.767386
SERPINB6	1.701367		2.574172	2.623402	
THOP1	1.83052	3.0669	1.994517		
CNPY2	1.692812			2.535902	2.658029
NDUFS3		3.634004			3.24777
KHSRP	2.337543		2.334367	2.18284	
RGPD8			2.790729	1.993185	2.044556
LUC7L	2.14825			2.646635	2.012103
FAM192A	2.19678		2.101662	2.502472	
NIP30	2.19678		2.101662	2.502472	
FDXR		3.204603			3.569308
DIABLO	3.470922			3.162607	
CTSD	2.764534		2.184228	1.633458	
PDXK		2.768878		3.813	
ENOPH1		3.275681		3.281413	
ADH5		4.438559			2.107903
ATP6V1A	2.616283		3.914687		
BOLA2B	1.949802		2.531919		2.030146
PSMD2	2.575998			1.913183	1.991732
HSPH1	1.861151	2.481301		2.136592	
ESYT1	6.467632				
ANXA11	2.758876			3.679571	
PSMC4	3.62412		2.79761		
MRPL54	1.979787			2.264255	2.176214
DBNL	1.992865	2.598789		1.799021	
COX17		4.138176		2.176945	
NENF		4.063449	2.228286		
HTATSF1				3.434256	2.841531
ERO1L	2.105464		1.902549	2.165832	
TFG		3.504833	2.649044		
ANP32B	2.161234	2.40423		1.576709	
NEDD8	1.710424		2.308731		2.099346
ARHGDI1A	2.916074	3.189264			
NACA	2.736439	3.312098			
NACAP1	2.736439	3.312098			
HMG1				3.839661	2.196214
SMC4	2.875315				3.15906

GNL3L	1.872913			2.058355	2.092061
AP2B1	2.388375			3.517103	
RPS10				1.902229	3.988693
RPL36A				1.932089	3.95545
ATP6V1G1	1.704632			2.084276	2.070331
PHF10		3.305897		2.50985	
YME1L1	2.878041		2.931416		
PSMC2	1.933995			1.554068	2.315774
COX5A	2.388357				3.343177
RAB10	1.929802			1.841796	1.939974
ACTN1	2.743049		2.909647		
PRRC2C	2.79258			2.843893	
SDF2L1			3.044193	2.573121	
MRPL43	2.253248				3.299464
WARS2	1.617425			1.919252	2.003444
PSMA3	2.130522			1.587251	1.821469
C7orf50				2.674377	2.84751
ANXA7				2.082532	3.42387
CHP1			2.296386	3.203726	
MBD3				5.476899	
CCDC51			2.237144		3.233808
ALDOA	3.534905		1.90478		
ALDH3A2			2.556438	2.881385	
MT1G				1.866686	3.544116
MT1X				1.866686	3.544116
MT2A				1.866686	3.544116
ANP32A		3.16617		2.236798	
STRAP	3.161106		2.228816		
ACAT2				2.202422	3.170913
ARL6IP1				2.28348	3.061888
RPP30		3.162947		2.175497	
MRPL28	2.89524	2.435261			
SOAT1		3.393369	1.908336		
PSMD3		2.901293		2.399148	
CDK12				1.934796	3.358473
MTHFD1	2.035142	3.256585			
TMEM109				1.583293	3.660171
TIMM44	2.288551			2.954102	
HMGB1			2.053238		3.185158
AASDHPPT		3.698679		1.525075	
PLAA	3.183263		2.019315		
HOGA1		5.126284			
MTAP				2.186789	2.92956
RRM1	2.889854			2.177119	
GLA	1.70232	3.359821			

TPM1	2.048929	3.011784			
WAC		3.087276			1.966984
IK	2.841029				2.203195
PABPC4	1.94145	3.067632			
CAPNS1	2.211067		2.743208		
RPL6	2.4604		2.489208		
ENAH			2.181123	2.764129	
GOLGB1			2.234753	2.696459	
MAPRE1	1.791286		3.121137		
LDHC	1.794485				3.10659
LDHAL6A	1.789159				3.10659
POLR2C	2.819616				2.066271
DNMT1			2.593665	2.288293	
RPSA	2.881093		1.988933		
RPSAP58	2.881093		1.988933		
DHX16	2.101774				2.768185
PFDN1	2.42461	2.441221			
CALR	1.913297			2.936833	
MGST3				2.011989	2.80992
PRMT1				2.329166	2.443066
PTPN11				2.256195	2.514812
FAM136A	2.424383			2.335816	
HIST1H2AA	2.666481				2.092809
HIST2H2AB	2.666481				2.092809
HSD17B4			2.48396	2.26284	
MYH14		2.91099		1.83238	
GTF2B	1.651819	3.085004			
HSP90AA2P	2.035183			2.69993	
DYNLL2				1.914272	2.783023
MRPL48	2.150361		2.539726		
SRRT	1.979584		2.709848		
ME2				2.436454	2.221229
RPS15A				-2.02694	6.675799
COPS4	1.990373		2.657296		
ZC3H15			2.757377	1.855163	
TOR1AIP2	2.459627		2.117487		
ACTN3	2.252729		2.320214		
IDH3G				2.446435	2.121665
CBX3	2.15162				2.327079
EPHX1	2.42765			2.040366	
UQCRH	2.010752		2.449987		
RPS6			2.411445	2.04335	
DSP	4.434354				
SLC25A12	2.405652		2.026509		
PSPC1			2.215189	2.182588	

GNAI2	2.314332			2.079175	
PAFAH1B1	2.375067			2.002867	
LAGE3	2.554402			1.78	
PHKA1		4.328953			
CHMP2B	2.384917			1.910879	
DNAJC10	2.077288		2.212304		
SF3B5				1.882338	2.406396
PPP4C	1.822557			2.451841	
PGK1	2.342255				1.91809
ASF1A		4.260295			
SMAP1	2.648268			1.562437	
ATP5I	2.209109				1.989552
DOCK7				1.939902	2.249794
ARPC4	1.716356	2.463381			
EIF4A1	1.93007			2.230942	
TTL12	2.391918			1.752711	
EXD2			1.955702	2.16254	
RPS11	2.593197			1.507423	
OSGEP		4.05778			
KCTD8	1.628728			2.411947	
NUP205			4.011751		
ACIN1				1.894929	2.097997
IQGAP3	2.151935			1.822634	
AP1G1				1.65093	2.316004
SEC62		3.962062			
NUP205		3.948217			
HK1				1.409166	2.506763
UTP14A	1.543426				2.36726
RPS27	1.88114			1.999324	
PPA1	1.871631			2.00716	
BANF1	1.706804				2.151884
KCTD5			1.956284	1.893866	
DNAJB6	1.701296			2.06817	
PLOD2	1.718174		2.000222		
UTP18				1.805531	1.869702
IDH3B					3.656461
BCL2L10	1.669657		1.974647		
NUP205	3.59716				
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PGM2			-3.7279		-2.39205
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PHPT1			-3.66874	-3.84566	
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CBX1		-5.21183			-2.7781
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CTAGE5				-3.58782	-4.47776
CTAGE6				-3.58782	-4.47776
TAF15		-4.19254			-3.99674
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MCCC2	-3.11452		-3.21069	-1.96365	
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TRA2B		-4.77632	-3.81167		
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ALDH2	-2.33637	-4.41162		-2.14713	
RAB1B		-4.65953	-2.18092		-2.09605
MTCH1			-2.18375	-3.48679	-3.27149
POR	-1.81961	-3.25148	-3.92775		
LONP1	-3.83915			-2.54906	-2.61854
MIA3	-3.65132				-5.36818
MDN1	-2.56547		-3.06559	-3.39707	
SF1	-2.05474	-4.69558	-2.28328		
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GOLGA2		-3.60266	-5.5469		
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BLVRB	-2.98371		-2.34786	-3.90642	
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KLF5		-4.98045			-4.49282
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FANCI		-3.39482	-2.12464	-1.93601	-2.18894
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RPS3	-2.01822	-2.55162	-3.55774	-1.56856	
GLG1	-1.89069	-3.92503	-3.916		
HYPK			-2.36668	-3.75753	-3.61602
EPHA1		-5.85843			-3.92295
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MRPS2		-3.96438	-2.35695		-3.52165
HINT2	-1.64731	-3.33558	-4.86458		

RAE1	-2.294		-4.54597	-3.01205	
TBCA		-4.52328		-2.49885	-2.86716
MAGOHB			-5.15879	-4.81772	
JAGN1	-1.76587	-3.2846	-5.01074		
HAUS5			-5.00363	-5.11961	
HRNR	-1.71872	-4.44977	-3.99967		
HDAC3		-4.78826		-2.79245	-2.63155
OPA1	-1.95731	-2.98096	-3.84387	-1.4548	
EIF3L		-3.27529	-2.32363	-4.66606	
TUBA1B		-3.84488		-3.32749	-3.12603
NFKB1	-2.38713	-4.68233	-3.24169		
NUP214	-1.68229	-4.20825			-4.42111
AHI1	-4.09986		-2.72808	-3.48705	
CTCF		-4.8681	-3.24057	-2.21565	
UQCRHL		-4.96787	-5.36534		
MSH6	-3.1869		-3.83339		-3.34302
TXNRD2	-2.67099		-2.82549	-2.3184	-2.57116
PPP2CB	-3.02403		-2.20384	-2.32244	-2.86148
TKT		-4.78226	-3.45294	-2.20249	
CKMT2	-7.31166	-3.13142			
BTF3		-4.52325	-2.23324	-3.69326	
CCDC88A	-1.92896	-3.70426	-4.82441		
DCTN1	-3.68118		-2.08564	-2.54467	-2.16343
NUDT4	-3.35216		-3.71012	-3.47625	
MRPL45		-4.72601		-3.02012	-2.8789
PTPN1	-2.41264		-6.11431	-2.10032	
PRPF3	-1.64692	-3.75091	-5.24415		
RRP1	-1.81888	-4.05443	-4.83157		
SPC24	-3.18572		-2.63221	-2.65616	-2.26324
PRRC2B	-5.33384		-5.41079		
TRAFD1	-4.65776		-6.09701		
ARF4		-3.89356	-3.36684		-3.50419
PQBP1		-3.5691	-3.19545	-4.01847	
QRSL1		-4.83718		-3.0823	-2.87874
MECP2	-1.65892	-2.9638	-3.79068		-2.40192
PPAN	-2.24208	-4.23519			-4.33856
PRPF8		-4.69843		-3.06528	-3.05385
GIGYF2	-5.23002		-5.59673		
CLIP1	-5.52272		-5.39031		
H2AFY2		-3.33639		-2.34605	-5.30917
MORF4L2	-1.70126	-3.85077	-5.46515		
EEF1D	-3.18076	-4.22798	-3.63028		
BRD2		-4.92208	-1.99984	-2.07824	-2.07841
RBBP7	-1.96283	-4.50157	-4.67233		
LIN28B	-1.99355	-4.2553	-4.92341		

EIF3K		-4.64853	-4.06543		-2.48863
NPLOC4		-4.82177		-6.45841	
FSCN1	-1.74446	-2.76885	-1.97186	-2.95836	-1.85797
AK4	-2.97859		-4.88446	-3.4413	
MAEA	-6.3216		-5.08716		
H1FO	-2.29637	-4.06689	-5.08023		
DNAJA2	-2.16084	-2.8405	-3.11171	-3.41109	
CCDC40	-2.79399		-4.36784	-4.37256	
ME3	-2.76386		-3.08055	-2.54698	-3.14328
ZFP91		-4.0916	-3.78816	-3.68301	
PRPS2	-4.44689		-3.87921	-3.26656	
CTNNA2	-6.41266		-2.42278	-2.80351	
SAP18	-1.76106	-3.69719	-4.28512	-1.93191	
TCOF1	-2.52958	-4.72993	-4.43958		
GPI	-4.13662	-3.30016	-4.39904		
ARFIP2	-1.52336	-4.24947	-2.01632	-1.80654	-2.31031
CEBPZ	-3.38903	-4.01362	-4.52096		
GFAP	-2.56903	-4.53128			-4.93394
PRPS1	-4.5759	-4.57822			-2.88845
SRA1	-4.82263		-7.28302		
FMR1		-4.95257		-2.53209	-4.71424
PPP1CB	-3.42358	-4.65436	-4.42937		
SRFBP1	-1.98805	-3.34978	-7.29198		
HSPB1			-4.73576	-4.36162	-3.8192
EEF1E1		-6.86054			-6.06483
H3F3B		-6.76445		-4.24893	-1.92272
SEC23B	-4.18584		-2.82511	-5.95474	
SND1	-2.71156	-4.81229	-5.49595		
COASY			-4.54123	-4.47389	-4.10802
CNNM3	-4.16759		-4.94109		-4.09574
HIST2H3A		-6.64183	-2.20666	-4.39613	
COX6B1	-2.10898	-4.96415	-4.38356	-1.8648	
COPS7B	-2.27656	-3.36173	-2.5223	-2.48199	-2.72831
PGM3	-2.49373	-4.7844	-3.32577	-2.80093	
CANX	-3.01042	-4.67975	-5.74233		
GLOD4	-4.39466		-4.95115		-4.09903
MMS19	-5.22148		-5.76786		-2.45932
RABGGTA	-4.68242		-4.35548	-4.43311	
DDA1		-3.66045	-4.0701	-3.04059	-2.7321
ACADM			-4.351	-4.66082	-4.52815
ACSS1		-5.01948	-3.97647		-4.68342
EEF1B2	-4.87672			-3.02157	-5.90591
MPI	-5.76336		-5.21043	-2.96149	
ASF1B	-3.65531	-3.21335	-3.26664	-3.81284	
RDX		-4.48743	-3.93859	-5.56478	

SAE1	-2.19875	-4.24549	-4.93982	-2.64291	
TUBB3		-7.05714	-7.00555		
TLN1	-3.63884	-3.06067	-3.12949	-4.33643	
PITRM1		-3.53572	-5.89462	-4.7649	
ANKFY1	-4.80386		-4.51406	-4.91232	
NIFK	-4.20641	-2.60795	-3.10476		-4.37299
WDR26	-3.12993		-3.98745	-3.7618	-3.57455
MGEA5	-2.84603	-3.48507	-2.14835	-2.38809	-3.65902
MRPS11	-2.77407		-2.97123	-5.17664	-3.66401
M6PR	-3.56131		-3.51921	-3.39562	-4.16329
H2AFX		-6.62986			-8.08532
DCAF16	-5.52875		-4.54073	-4.65581	
MRPS7		-3.14333	-3.63385	-3.63196	-4.34917
ASNS	-3.26016	-3.08155	-3.37231	-2.27543	-2.8064
PUS7	-5.16088		-3.97028	-5.66554	
GABPB1	-3.47805	-3.35808	-2.18386	-2.48375	-3.35332
BRAT1	-5.56477		-4.48034	-4.81625	
INIP	-4.27096	-4.9338	-5.69663		
SUCLG2	-3.55896	-3.9432	-5.67396		-1.7967
LIMD1	-4.68498		-5.08561	-5.2122	
VAR5	-5.93881	-4.2199	-4.83735		
SRM		-5.48838	-2.14884	-1.92881	-5.55824
BICD2	-4.67942		-5.56768	-4.88815	
GLMN	-1.81899	-4.22006	-2.30759	-4.64907	-2.24806
H3F3A		-6.76445	-2.71014	-4.24893	-1.92272
TIMM8B	-3.98872	-5.30694	-6.35228		
ARHGEF2	-4.53546		-5.31077	-5.82438	
RBM22	-2.14895	-5.78662		-2.1559	-5.59411
TBC1D10A	-5.22328		-5.20582	-5.58217	
ERP44	-2.89223	-3.31769	-4.16772	-5.64274	
ARF3		-4.22191	-3.54668	-4.73116	-3.53436
EPPK1	-5.4896	-3.04698	-4.88533	-2.70167	
LCMT1	-5.21382		-5.56951	-5.42072	
CS	-3.25118	-3.54226	-6.87837	-2.5323	
KPNB1		-8.46766			-7.89599
ARKL1	-4.97984		-5.85681	-5.53419	
C18orf25	-4.97984		-5.85681	-5.53419	
TMEM43		-5.33729	-4.5333	-2.50588	-4.02813
SCRN1	-4.59368	-4.2047	-3.76325	-3.87301	
ARPP19	-5.81093		-6.06673		-4.74266
KARS	-6.11055	-4.55625	-6.04847		
RDH13	-3.98578		-4.49534	-4.0922	-4.31779
EBP	-5.832	-4.91765	-6.21543		
RCCD1	-5.78196		-5.71506	-5.51246	
GFPT2	-3.50895	-4.38267	-2.97668	-2.79141	-3.40927

PRPSAP1	-5.64579	-3.71109	-3.31804	-4.55715	
HNRNPH1		-8.77373			-8.47423
RPS25		-9.25642			-8.20431
BAX	-3.32021	-3.99552	-2.55488	-3.41644	-4.22591
ASMTL	-5.75089		-6.92835		-5.04693
UBE4A	-6.07745		-6.01091	-5.68513	
ZMYM3	-2.01258	-7.44503	-3.11302	-2.37103	-2.87086
UBE2D2	-4.78417	-7.63231	-5.6772		
LPCAT1	-4.15719		-4.33641	-4.55881	-5.23647
TPP2		-4.98151	-4.10636	-4.91478	-4.48483
SETBP1	-4.96562	-3.54104	-3.67386	-2.9208	-3.42441
LRBA	-5.89315		-6.6587	-6.02414	
MARS	-5.27435	-6.04085	-4.33166	-3.00277	
MDC1	-1.99005	-4.15421	-4.53817	-3.85958	-4.46956
HMG2	-2.09869	-7.09145	-5.01563		-5.13983
FOXK2	-3.71763	-7.63066	-4.11425	-3.92256	
HLA-B	-3.64988	-5.34063	-2.8023	-3.83091	-3.83927
HLA-C	-3.64988	-5.34063	-2.8023	-3.83091	-3.83927
PDCD4	-4.523		-5.51754	-5.28284	-4.8968
RNMTL1	-6.71739	-6.38833	-7.51742		
RPL27A		-10.0358		-2.10736	-8.54864
SMG9	-4.10003	-5.55353	-3.34812	-3.84959	-3.92629
FAF1	-2.89307	-6.4032	-3.65202	-3.2299	-5.08432
CASP3	-3.6092	-6.17586	-3.73259	-3.3312	-4.87781
RARA	-3.94285	-5.86028	-3.90118	-4.41347	-3.91848
GPKOW	-4.74284	-5.34473	-5.16134	-4.29502	-4.04348
TMEM180		-7.20109	-5.82679	-6.75557	-6.37137