



ADDITIONAL MATERIALS AVAILABLE ON THE HEI WEBSITE

Research Report 201

Understanding the Functional Impact of VOC–Ozone Mixtures on the Chemistry of RNA in Epithelial Lung Cells

Contreras et al.

Additional Materials 2: Appendix B. Tables of Differentially Expressed and Significantly Oxidized Transcripts upon Exposure, and Tables from the Functional Enrichment Analysis

These Additional Materials were not formatted or edited by HEI. This document was part of the HEI Review Committee's review process.

Correspondence may be addressed to Dr. Lydia M. Contreras, McKetta Department of Chemical Engineering, University of Texas at Austin, Department of Statistics & Data Sciences, Patterson Hall 141MC & GDC 7.510, Austin, TX 78712; e-mail: lcontrer@che.utexas.edu.

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Appendix B Table B.1. Significantly upregulated transcripts upon exposure (153 transcripts)

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000557538	HIF1A	ENSG00000100644	hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]	10.23	6.350x10 ⁻¹⁶	2.064x10 ⁻¹¹
ENST00000397412	CRAMP1	ENSG00000007545	cramped chromatin regulator homolog 1 [Source:HGNC Symbol;Acc:HGNC:14122]	10.04	9.035x10 ⁻¹⁵	1.175x10 ⁻¹⁰
ENST00000620676	VPS13D	ENSG00000048707	vacuolar protein sorting 13 homolog D [Source:HGNC Symbol;Acc:HGNC:23595]	7.170	8.754x10 ⁻¹⁵	1.175x10 ⁻¹⁰
ENST00000271877	UBAP2L	ENSG00000143569	ubiquitin associated protein 2 like [Source:HGNC Symbol;Acc:HGNC:29877]	9.879	8.668x10 ⁻¹⁵	1.175x10 ⁻¹⁰
ENST00000440195	SMG1P3	ENSG00000180747	SMG1P3, nonsense mediated mRNA decay associated PI3K related kinase pseudogene 3 [Source:HGNC Symbol;Acc:HGNC:49860]	9.695	1.468x10 ⁻¹³	8.674x10 ⁻¹⁰
ENST00000411769	CRKL	ENSG00000099942	CRK like proto-oncogene, adaptor protein [Source:HGNC Symbol;Acc:HGNC:2363]	20.78	2.836x10 ⁻¹³	1.229x10 ⁻⁹
ENST00000379902	TNS2	ENSG00000111077	tensin 2 [Source:HGNC Symbol;Acc:HGNC:19737]	20.78	2.829x10 ⁻¹³	1.229x10 ⁻⁹
ENST00000491632	ARID4B	ENSG00000054267	AT-rich interaction domain 4B [Source:HGNC Symbol;Acc:HGNC:15550]	9.967	9.333x10 ⁻¹²	3.371x10 ⁻⁸
ENST00000539363	ITGA10	ENSG00000143127	integrin subunit alpha 10 [Source:HGNC Symbol;Acc:HGNC:6135]	9.114	3.143x10 ⁻¹¹	9.731x10 ⁻⁸
ENST00000424325	RPL10	ENSG00000147403	ribosomal protein L10 [Source:HGNC Symbol;Acc:HGNC:10298]	9.381	7.429x10 ⁻¹¹	2.196x10 ⁻⁷
ENST00000415325	DLD	ENSG00000091140	dihydrolipoamide dehydrogenase [Source:HGNC Symbol;Acc:HGNC:2898]	8.960	1.431x10 ⁻¹⁰	3.877x10 ⁻⁷
ENST00000368863	POGZ	ENSG00000143442	pogo transposable element with ZNF domain [Source:HGNC Symbol;Acc:HGNC:18801]	8.908	4.294x10 ⁻¹⁰	9.626x10 ⁻⁷
ENST00000417960	ECT2	ENSG00000114346	epithelial cell transforming 2 [Source:HGNC Symbol;Acc:HGNC:3155]	8.763	9.279x10 ⁻¹⁰	1.946x10 ⁻⁶
ENST00000619438	SGMS1	ENSG00000198964	sphingomyelin synthase 1 [Source:HGNC Symbol;Acc:HGNC:29799]	8.561	6.723x10 ⁻⁹	1.214x10 ⁻⁵
ENST00000398896	USP19	ENSG00000172046	ubiquitin specific peptidase 19 [Source:HGNC Symbol;Acc:HGNC:12617]	8.607	6.539x10 ⁻⁹	1.214x10 ⁻⁵
ENST00000474017	PISD	ENSG00000241878	phosphatidylserine decarboxylase [Source:HGNC Symbol;Acc:HGNC:8999]	8.361	7.013x10 ⁻⁹	1.232x10 ⁻⁵
ENST00000640999	STRADA	ENSG00000266173	STE20-related kinase adaptor alpha [Source:HGNC Symbol;Acc:HGNC:30172]	8.362	2.194x10 ⁻⁸	3.480x10 ⁻⁵
ENST00000426821	ZNF185	ENSG00000147394	zinc finger protein 185 (LIM domain) [Source:HGNC Symbol;Acc:HGNC:12976]	8.320	2.259x10 ⁻⁸	3.497x10 ⁻⁵
ENST00000354582	ITPR1	ENSG00000150995	inositol 1,4,5-trisphosphate receptor type 1 [Source:HGNC Symbol;Acc:HGNC:6180]	8.368	2.667x10 ⁻⁸	3.917x10 ⁻⁵
ENST00000389562	EP400	ENSG00000183495	E1A binding protein p400 [Source:HGNC Symbol;Acc:HGNC:11958]	8.220	3.017x10 ⁻⁸	4.173x10 ⁻⁵
ENST00000398898	USP19	ENSG00000172046	ubiquitin specific peptidase 19 [Source:HGNC Symbol;Acc:HGNC:12617]	8.736	3.464x10 ⁻⁸	4.564x10 ⁻⁵
ENST00000530085	RDX	ENSG00000137710	radixin [Source:HGNC Symbol;Acc:HGNC:9944]	7.913	5.803x10 ⁻⁸	7.397x10 ⁻⁵
ENST00000471702	NPHP3-ACAD11	ENSG00000274810	NPHP3-ACAD11 readthrough (NMD candidate) [Source:HGNC Symbol;Acc:HGNC:48351]	8.214	6.091x10 ⁻⁸	7.615x10 ⁻⁵
ENST00000492367	NUCB1	ENSG00000104805	nucleobindin 1 [Source:HGNC Symbol;Acc:HGNC:8043]	2.658	7.316x10 ⁻⁸	8.974x10 ⁻⁵
ENST00000373851	CNTRL	ENSG00000119397	centriolin [Source:HGNC Symbol;Acc:HGNC:1858]	8.337	8.124x10 ⁻⁸	9.781x10 ⁻⁵
ENST00000360132	CASP10	ENSG00000003400	caspase 10 [Source:HGNC Symbol;Acc:HGNC:1500]	7.857	1.303x10 ⁻⁷	1.486x10 ⁻⁴
ENST00000371058	LEPR	ENSG00000116678	leptin receptor [Source:HGNC Symbol;Acc:HGNC:6554]	7.862	1.475x10 ⁻⁷	1.625x10 ⁻⁴
ENST00000580953	RFNG	ENSG00000169733	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase [Source:HGNC Symbol;Acc:HGNC:9974]	8.254	1.646x10 ⁻⁷	1.699x10 ⁻⁴
ENST00000469704	SNXS	ENSG00000089006	sorting nexin 5 [Source:HGNC Symbol;Acc:HGNC:14969]	3.170	1.990x10 ⁻⁷	1.931x10 ⁻⁴
ENST00000457519	PILRB	ENSG00000121716	paired immunoglobulin-like type 2 receptor beta [Source:HGNC Symbol;Acc:HGNC:18297]	8.817	1.980x10 ⁻⁷	1.931x10 ⁻⁴
ENST00000338179	LBR	ENSG00000143815	lamin B receptor [Source:HGNC Symbol;Acc:HGNC:6518]	7.843	2.285x10 ⁻⁷	2.185x10 ⁻⁴
ENST00000369315	CASP7	ENSG00000165806	caspase 7 [Source:HGNC Symbol;Acc:HGNC:1508]	7.721	3.077x10 ⁻⁷	2.857x10 ⁻⁴
ENST00000472573	F11R	ENSG00000158769	F11 receptor [Source:HGNC Symbol;Acc:HGNC:14685]	3.780	3.436x10 ⁻⁷	3.103x10 ⁻⁴
ENST00000311066	PRDM2	ENSG00000116731	PR/SET domain 2 [Source:HGNC Symbol;Acc:HGNC:9347]	7.870	3.411x10 ⁻⁷	3.103x10 ⁻⁴
ENST00000478020	NAA50	ENSG00000121579	N(alpha)-acetyltransferase 50, NatE catalytic subunit [Source:HGNC Symbol;Acc:HGNC:29533]	7.647	3.702x10 ⁻⁷	3.297x10 ⁻⁴
ENST00000620260	RAPGEFL1	ENSG00000108352	Rap guanine nucleotide exchange factor like 1 [Source:HGNC Symbol;Acc:HGNC:17428]	8.341	3.908x10 ⁻⁷	3.434x10 ⁻⁴
ENST00000573556	GAA	ENSG00000171298	glucosidase alpha, acid [Source:HGNC Symbol;Acc:HGNC:4065]	7.703	3.983x10 ⁻⁷	3.452x10 ⁻⁴
ENST00000438265	RPE	ENSG00000197713	ribulose-5-phosphate-3-epimerase [Source:HGNC Symbol;Acc:HGNC:10293]	7.761	4.210x10 ⁻⁷	3.554x10 ⁻⁴
ENST00000381329	WDR37	ENSG00000047056	WD repeat domain 37 [Source:HGNC Symbol;Acc:HGNC:31406]	7.649	4.167x10 ⁻⁷	3.554x10 ⁻⁴
ENST00000587557	ZNF559	ENSG00000188321	zinc finger protein 559 [Source:HGNC Symbol;Acc:HGNC:28197]	7.677	4.600x10 ⁻⁷	3.785x10 ⁻⁴
ENST00000610073	GAS6	ENSG00000183087	growth arrest specific 6 [Source:HGNC Symbol;Acc:HGNC:4168]	4.628	4.805x10 ⁻⁷	3.905x10 ⁻⁴
ENST00000505596	AMOTL2	ENSG00000114019	angiominin like 2 [Source:HGNC Symbol;Acc:HGNC:17812]	6.580	5.231x10 ⁻⁷	4.199x10 ⁻⁴
ENST00000640840	PRICKLE1	ENSG00000139174	prickle planar cell polarity protein 1 [Source:HGNC Symbol;Acc:HGNC:17019]	8.441	6.348x10 ⁻⁷	4.972x10 ⁻⁴
ENST00000540556	ZNF211	ENSG00000121417	zinc finger protein 211 [Source:HGNC Symbol;Acc:HGNC:13003]	7.598	6.718x10 ⁻⁷	5.199x10 ⁻⁴
ENST00000471844	ARNT	ENSG00000143437	aryl hydrocarbon receptor nuclear translocator [Source:HGNC Symbol;Acc:HGNC:700]	7.755	7.311x10 ⁻⁷	5.527x10 ⁻⁴
ENST00000379937	BRF1	ENSG00000185024	BRF1, RNA polymerase III transcription initiation factor subunit [Source:HGNC Symbol;Acc:HGNC:11551]	7.537	7.688x10 ⁻⁷	5.616x10 ⁻⁴
ENST00000479734	DDX17	ENSG00000100201	DEAD-box helicase 17 [Source:HGNC Symbol;Acc:HGNC:2740]	4.574	8.227x10 ⁻⁷	5.943x10 ⁻⁴
ENST00000564751	CD276	ENSG00000103855	CD276 molecule [Source:HGNC Symbol;Acc:HGNC:19137]	7.865	9.870x10 ⁻⁷	6.754x10 ⁻⁴
ENST00000628904	PKP4	ENSG00000144283	plakophilin 4 [Source:HGNC Symbol;Acc:HGNC:9026]	5.804	1.077x10 ⁻⁶	7.297x10 ⁻⁴

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000328300	COL4A5	ENSG00000188153	collagen type IV alpha 5 chain [Source:HGNC Symbol;Acc:HGNC:2207]	2.195	1.219x10 ⁻⁶	8.004x10 ⁻⁴
ENST00000569057	ZFYVE19	ENSG00000166140	zinc finger FYVE-type containing 19 [Source:HGNC Symbol;Acc:HGNC:20758]	7.533	1.386x10 ⁻⁶	8.833x10 ⁻⁴
ENST00000484976	ECD	ENSG00000122882	ecdysoneless cell cycle regulator [Source:HGNC Symbol;Acc:HGNC:17029]	7.452	1.416x10 ⁻⁶	8.937x10 ⁻⁴
ENST00000378712	MIB2	ENSG00000197530	mindbomb E3 ubiquitin protein ligase 2 [Source:HGNC Symbol;Acc:HGNC:30577]	7.601	1.942x10 ⁻⁶	1.178x10 ⁻³
ENST00000464810	NPR2	ENSG00000159899	natriuretic peptide receptor 2 [Source:HGNC Symbol;Acc:HGNC:7944]	7.589	2.502x10 ⁻⁶	1.465x10 ⁻³
ENST00000443632	HIC2	ENSG00000169635	HIC ZBTB transcriptional repressor 2 [Source:HGNC Symbol;Acc:HGNC:18595]	7.397	3.258x10 ⁻⁶	1.842x10 ⁻³
ENST00000624282	AC111170.3	ENSG00000279801		4.245	3.841x10 ⁻⁶	2.134x10 ⁻³
ENST00000572882	ABCC1	ENSG00000103222	ATP binding cassette subfamily C member 1 [Source:HGNC Symbol;Acc:HGNC:51]	10.88	3.890x10 ⁻⁶	2.143x10 ⁻³
ENST00000456048	TANGO2	ENSG00000183597	transport and golgi organization 2 homolog [Source:HGNC Symbol;Acc:HGNC:25439]	7.648	4.232x10 ⁻⁶	2.293x10 ⁻³
ENST00000615927	PRR12	ENSG00000126464	proline rich 12 [Source:HGNC Symbol;Acc:HGNC:29217]	6.331	4.812x10 ⁻⁶	2.564x10 ⁻³
ENST00000482956	CRELD2	ENSG00000184164	cysteine rich with EGF like domains 2 [Source:HGNC Symbol;Acc:HGNC:28150]	7.402	5.056x10 ⁻⁶	2.673x10 ⁻³
ENST00000574344	NPLOC4	ENSG00000182446	NPL4 homolog, ubiquitin recognition factor [Source:HGNC Symbol;Acc:HGNC:18261]	7.338	5.883x10 ⁻⁶	3.012x10 ⁻³
ENST00000571316	TBCD	ENSG00000141556	tubulin folding cofactor D [Source:HGNC Symbol;Acc:HGNC:11581]	3.537	5.857x10 ⁻⁶	3.012x10 ⁻³
ENST00000520158	CTNNA1	ENSG00000044115	catenin alpha 1 [Source:HGNC Symbol;Acc:HGNC:2509]	4.252	6.117x10 ⁻⁶	3.107x10 ⁻³
ENST00000582230	TOP3A	ENSG00000177302	topoisomerase (DNA) III alpha [Source:HGNC Symbol;Acc:HGNC:11992]	7.282	6.409x10 ⁻⁶	3.230x10 ⁻³
ENST00000437822	TAF6	ENSG00000106290	TATA-box binding protein associated factor 6 [Source:HGNC Symbol;Acc:HGNC:11540]	7.394	6.947x10 ⁻⁶	3.448x10 ⁻³
ENST00000409452	OSBPL3	ENSG00000070882	oxysterol binding protein like 3 [Source:HGNC Symbol;Acc:HGNC:16370]	5.699	1.095x10 ⁻⁵	5.195x10 ⁻³
ENST00000532330	BRPF3	ENSG00000096070	bromodomain and PHD finger containing 3 [Source:HGNC Symbol;Acc:HGNC:14256]	7.255	1.091x10 ⁻⁵	5.195x10 ⁻³
ENST00000398398	MBD2	ENSG00000134046	methyl-CpG binding domain protein 2 [Source:HGNC Symbol;Acc:HGNC:6917]	7.179	1.343x10 ⁻⁵	6.282x10 ⁻³
ENST00000511683	CCNG1	ENSG00000113328	cyclin G1 [Source:HGNC Symbol;Acc:HGNC:1592]	8.131	1.384x10 ⁻⁵	6.427x10 ⁻³
ENST00000304538	PRDM10	ENSG00000170325	PR/SET domain 10 [Source:HGNC Symbol;Acc:HGNC:13995]	7.175	1.651x10 ⁻⁵	7.513x10 ⁻³
ENST00000489923	PDIA5	ENSG00000065485	protein disulfide isomerase family A member 5 [Source:HGNC Symbol;Acc:HGNC:24811]	7.076	1.736x10 ⁻⁵	7.627x10 ⁻³
ENST00000501122	NEAT1	ENSG00000245532	nuclear paraspeckle assembly transcript 1 (non-protein coding) [Source:HGNC Symbol;Acc:HGNC:30815]	2.855	1.722x10 ⁻⁵	7.627x10 ⁻³
ENST00000548169	ATP2A2	ENSG00000174437	ATPase sarcoplasmic/endoplasmic reticulum Ca ²⁺ transporting 2 [Source:HGNC Symbol;Acc:HGNC:812]	3.955	1.717x10 ⁻⁵	7.627x10 ⁻³
ENST00000639287	GOSR2	ENSG00000108433	golgi SNAP receptor complex member 2 [Source:HGNC Symbol;Acc:HGNC:4431]	7.315	1.841x10 ⁻⁵	8.035x10 ⁻³
ENST00000369857	NTSC2	ENSG00000076685	5'-nucleotidase, cytosolic II [Source:HGNC Symbol;Acc:HGNC:8022]	2.461	1.884x10 ⁻⁵	8.168x10 ⁻³
ENST00000479976	CHTF18	ENSG00000127586	chromosome transmission fidelity factor 18 [Source:HGNC Symbol;Acc:HGNC:18435]	3.995	2.055x10 ⁻⁵	8.790x10 ⁻³
ENST00000489200	RPL10	ENSG00000147403	ribosomal protein L10 [Source:HGNC Symbol;Acc:HGNC:10298]	5.088	2.119x10 ⁻⁵	9.004x10 ⁻³
ENST00000637195	SLC9A6	ENSG00000198689	solute carrier family 9 member A6 [Source:HGNC Symbol;Acc:HGNC:11079]	7.244	2.200x10 ⁻⁵	9.289x10 ⁻³
ENST00000555686	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit [Source:HGNC Symbol;Acc:HGNC:3796]	2.221	2.348x10 ⁻⁵	9.786x10 ⁻³
ENST00000463049	MDM4	ENSG00000198625	MDM4, p53 regulator [Source:HGNC Symbol;Acc:HGNC:6974]	2.346	2.395x10 ⁻⁵	9.919x10 ⁻³
ENST00000502947	RGS12	ENSG00000159788	regulator of G-protein signaling 12 [Source:HGNC Symbol;Acc:HGNC:9994]	7.548	2.458x10 ⁻⁵	1.011x10 ⁻²
ENST00000532259	SRPRA	ENSG00000182934	SRP receptor alpha subunit [Source:HGNC Symbol;Acc:HGNC:11307]	2.848	2.622x10 ⁻⁵	1.072x10 ⁻²
ENST00000592420	SEPT9	ENSG00000184640	septin 9 [Source:HGNC Symbol;Acc:HGNC:7323]	4.317	2.761x10 ⁻⁵	1.122x10 ⁻²
ENST00000622997	ALG13	ENSG00000101901	ALG13, UDP-N-acetylglucosaminyltransferase subunit [Source:HGNC Symbol;Acc:HGNC:30881]	6.950	2.814x10 ⁻⁵	1.136x10 ⁻²
ENST00000447879	MPDZ	ENSG00000107186	multiple PDZ domain crumbs cell polarity complex component [Source:HGNC Symbol;Acc:HGNC:7208]	1.176	2.852x10 ⁻⁵	1.144x10 ⁻²
ENST00000518281	TNKS	ENSG00000173273	tankyrase [Source:HGNC Symbol;Acc:HGNC:11941]	1.965	3.154x10 ⁻⁵	1.250x10 ⁻²
ENST00000360238	CUEDC1	ENSG00000180891	CUE domain containing 1 [Source:HGNC Symbol;Acc:HGNC:31350]	3.275	3.254x10 ⁻⁵	1.282x10 ⁻²
ENST00000527552	MROH1	ENSG00000179832	maestro heat like repeat family member 1 [Source:HGNC Symbol;Acc:HGNC:26958]	3.205	3.347x10 ⁻⁵	1.311x10 ⁻²
ENST00000395757	SREBF1	ENSG00000072310	sterol regulatory element binding transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:11289]	2.923	3.368x10 ⁻⁵	1.311x10 ⁻²
ENST00000360214	ETS2	ENSG00000157557	ETS proto-oncogene 2, transcription factor [Source:HGNC Symbol;Acc:HGNC:3489]	7.008	3.424x10 ⁻⁵	1.325x10 ⁻²
ENST00000480426	GAS6	ENSG00000183087	growth arrest specific 6 [Source:HGNC Symbol;Acc:HGNC:4168]	2.750	3.458x10 ⁻⁵	1.330x10 ⁻²
ENST00000368121	ACKR1	ENSG00000213088	atypical chemokine receptor 1 (Duffy blood group) [Source:HGNC Symbol;Acc:HGNC:4035]	5.335	3.634x10 ⁻⁵	1.381x10 ⁻²
ENST00000441787	PRDM15	ENSG00000141956	PR/SET domain 15 [Source:HGNC Symbol;Acc:HGNC:13999]	6.934	3.912x10 ⁻⁵	1.453x10 ⁻²
ENST00000583621	MYO1D	ENSG00000176658	myosin ID [Source:HGNC Symbol;Acc:HGNC:7598]	6.928	3.985x10 ⁻⁵	1.472x10 ⁻²
ENST00000484716	GOLGA8B	ENSG00000215252	golgin A8 family member B [Source:HGNC Symbol;Acc:HGNC:31973]	2.625	4.347x10 ⁻⁵	1.588x10 ⁻²
ENST00000262318	CLCN7	ENSG00000103249	chloride voltage-gated channel 7 [Source:HGNC Symbol;Acc:HGNC:2025]	1.800	4.725x10 ⁻⁵	1.697x10 ⁻²
ENST00000584265	MRC2	ENSG00000011028	mannose receptor C type 2 [Source:HGNC Symbol;Acc:HGNC:16875]	2.638	5.025x10 ⁻⁵	1.795x10 ⁻²
ENST00000376514	LENG8	ENSG00000167615	leukocyte receptor cluster member 8 [Source:HGNC Symbol;Acc:HGNC:15500]	2.562	5.462x10 ⁻⁵	1.920x10 ⁻²
ENST00000536445	POLE	ENSG00000177084	DNA polymerase epsilon, catalytic subunit [Source:HGNC Symbol;Acc:HGNC:9177]	2.954	5.745x10 ⁻⁵	2.008x10 ⁻²
ENST00000602986	AASDH	ENSG00000157426	aminoadipate-semialdehyde dehydrogenase [Source:HGNC Symbol;Acc:HGNC:23993]	7.158	5.906x10 ⁻⁵	2.010x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000474036	FN1	ENSG00000115414	fibronectin 1 [Source:HGNC Symbol;Acc:HGNC:3778]	3.936	5.871x10 ⁻⁵	2.010x10 ⁻²
ENST00000580605	ENOSF1	ENSG00000132199	enolase superfamily member 1 [Source:HGNC Symbol;Acc:HGNC:30365]	3.876	5.822x10 ⁻⁵	2.010x10 ⁻²
ENST00000576498	HGS	ENSG00000185359	hepatocyte growth factor-regulated tyrosine kinase substrate [Source:HGNC Symbol;Acc:HGNC:4897]	4.187	6.456x10 ⁻⁵	2.186x10 ⁻²
ENST00000449094	PLXNB1	ENSG00000164050	plexin B1 [Source:HGNC Symbol;Acc:HGNC:9103]	3.013	6.550x10 ⁻⁵	2.206x10 ⁻²
ENST00000376795	DNAJC3	ENSG00000102580	DnaJ heat shock protein family (Hsp40) member C3 [Source:HGNC Symbol;Acc:HGNC:9439]	2.573	6.751x10 ⁻⁵	2.251x10 ⁻²
ENST00000618534	NEK3	ENSG00000136098	NIMA related kinase 3 [Source:HGNC Symbol;Acc:HGNC:7746]	7.146	6.813x10 ⁻⁵	2.260x10 ⁻²
ENST00000511600	RNF4	ENSG00000063978	ring finger protein 4 [Source:HGNC Symbol;Acc:HGNC:10067]	2.424	6.963x10 ⁻⁵	2.275x10 ⁻²
ENST00000473185	CHI3L1	ENSG00000133048	chitinase 3 like 1 [Source:HGNC Symbol;Acc:HGNC:1932]	4.035	7.281x10 ⁻⁵	2.332x10 ⁻²
ENST00000334204	KIF27	ENSG00000165115	kinesin family member 27 [Source:HGNC Symbol;Acc:HGNC:18632]	4.825	7.261x10 ⁻⁵	2.332x10 ⁻²
ENST00000457718	TNS3	ENSG00000136205	tensin 3 [Source:HGNC Symbol;Acc:HGNC:21616]	2.632	7.338x10 ⁻⁵	2.339x10 ⁻²
ENST00000431201	PISD	ENSG00000241878	phosphatidylserine decarboxylase [Source:HGNC Symbol;Acc:HGNC:8999]	6.855	7.621x10 ⁻⁵	2.417x10 ⁻²
ENST00000538597	CCDC82	ENSG00000149231	coiled-coil domain containing 82 [Source:HGNC Symbol;Acc:HGNC:26282]	6.927	7.684x10 ⁻⁵	2.425x10 ⁻²
ENST00000476387	COL1A1	ENSG00000108821	collagen type I alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2197]	5.082	7.849x10 ⁻⁵	2.465x10 ⁻²
ENST00000511663	SH3BP2	ENSG00000087266	SH3 domain binding protein 2 [Source:HGNC Symbol;Acc:HGNC:10825]	2.646	8.085x10 ⁻⁵	2.491x10 ⁻²
ENST00000527871	RPS2	ENSG00000140988	ribosomal protein S2 [Source:HGNC Symbol;Acc:HGNC:10404]	2.543	8.070x10 ⁻⁵	2.491x10 ⁻²
ENST00000571855	ABCC3	ENSG00000108846	ATP binding cassette subfamily C member 3 [Source:HGNC Symbol;Acc:HGNC:54]	2.902	8.056x10 ⁻⁵	2.493x10 ⁻²
ENST00000517324	BMP1	ENSG00000168487	bone morphogenetic protein 1 [Source:HGNC Symbol;Acc:HGNC:1067]	5.036	8.129x10 ⁻⁵	2.493x10 ⁻²
ENST00000452839	CCNT2	ENSG00000082258	cyclin T2 [Source:HGNC Symbol;Acc:HGNC:1600]	3.378	8.325x10 ⁻⁵	2.541x10 ⁻²
ENST00000424843	LRP12	ENSG00000147650	LDL receptor related protein 12 [Source:HGNC Symbol;Acc:HGNC:31708]	7.456	8.971x10 ⁻⁵	2.700x10 ⁻²
ENST00000464367	RERE	ENSG00000142599	arginine-glutamic acid dipeptide repeats [Source:HGNC Symbol;Acc:HGNC:9965]	3.961	8.965x10 ⁻⁵	2.700x10 ⁻²
ENST00000428445	VARS	ENSG00000204394	valyl-tRNA synthetase [Source:HGNC Symbol;Acc:HGNC:12651]	7.069	9.094x10 ⁻⁵	2.725x10 ⁻²
ENST00000440180	CFLAR	ENSG00000003402	CASP8 and FADD like apoptosis regulator [Source:HGNC Symbol;Acc:HGNC:1876]	6.797	9.513x10 ⁻⁵	2.824x10 ⁻²
ENST00000273962	TRMT10A	ENSG00000145331	tRNA methyltransferase 10A [Source:HGNC Symbol;Acc:HGNC:28403]	6.825	9.569x10 ⁻⁵	2.828x10 ⁻²
ENST00000539643	SLC38A10	ENSG00000157637	solute carrier family 38 member 10 [Source:HGNC Symbol;Acc:HGNC:28237]	3.832	9.808x10 ⁻⁵	2.872x10 ⁻²
ENST00000358389	CNOT3	ENSG00000088038	CCR4-NOT transcription complex subunit 3 [Source:HGNC Symbol;Acc:HGNC:7879]	2.713	1.012x10 ⁻⁴	2.951x10 ⁻²
ENST00000562303	RPAP1	ENSG00000103932	RNA polymerase II associated protein 1 [Source:HGNC Symbol;Acc:HGNC:24567]	2.452	1.023x10 ⁻⁴	2.957x10 ⁻²
ENST00000369850	FLNA	ENSG00000196924	filamin A [Source:HGNC Symbol;Acc:HGNC:3754]	10.86	1.072x10 ⁻⁴	3.058x10 ⁻²
ENST00000496577	MOV10	ENSG00000155363	Mov10 RISC complex RNA helicase [Source:HGNC Symbol;Acc:HGNC:7200]	2.078	1.072x10 ⁻⁴	3.058x10 ⁻²
ENST00000479412	NOTCH2	ENSG00000134250	notch 2 [Source:HGNC Symbol;Acc:HGNC:7882]	2.777	1.101x10 ⁻⁴	3.116x10 ⁻²
ENST00000460073	GNL3	ENSG00000163938	G protein nucleolar 3 [Source:HGNC Symbol;Acc:HGNC:29931]	6.764	1.115x10 ⁻⁴	3.138x10 ⁻²
ENST00000592056	CLASRP	ENSG00000104859	CLK4 associating serine/arginine rich protein [Source:HGNC Symbol;Acc:HGNC:17731]	7.065	1.139x10 ⁻⁴	3.193x10 ⁻²
ENST00000503631	IBTK	ENSG00000005700	inhibitor of Bruton tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:17853]	7.331	1.192x10 ⁻⁴	3.327x10 ⁻²
ENST00000357084	ATP2A1	ENSG00000196296	ATPase sarcoplasmic/endoplasmic reticulum Ca ²⁺ transporting 1 [Source:HGNC Symbol;Acc:HGNC:811]	6.877	1.309x10 ⁻⁴	3.620x10 ⁻²
ENST00000539436	TRPT1	ENSG00000149743	tRNA phosphotransferase 1 [Source:HGNC Symbol;Acc:HGNC:20316]	6.790	1.321x10 ⁻⁴	3.639x10 ⁻²
ENST00000510746	YTHDC1	ENSG00000083896	YTH domain containing 1 [Source:HGNC Symbol;Acc:HGNC:30626]	5.378	1.371x10 ⁻⁴	3.760x10 ⁻²
ENST00000395684	SHMT1	ENSG00000176974	serine hydroxymethyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:10850]	2.962	1.435x10 ⁻⁴	3.874x10 ⁻²
ENST00000631594	PEG13	ENSG00000282164	paternally expressed 13 [Source:HGNC Symbol;Acc:HGNC:19969]	3.747	1.432x10 ⁻⁴	3.874x10 ⁻²
ENST00000477066	SRC	ENSG00000197122	SRC proto-oncogene, non-receptor tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:11283]	6.660	1.442x10 ⁻⁴	3.875x10 ⁻²
ENST00000564284	ATXN2L	ENSG00000168488	ataxin 2 like [Source:HGNC Symbol;Acc:HGNC:31326]	4.704	1.475x10 ⁻⁴	3.946x10 ⁻²
ENST00000509613	FAM156B	ENSG00000179304	family with sequence similarity 156 member B [Source:HGNC Symbol;Acc:HGNC:31962]	6.666	1.561x10 ⁻⁴	4.140x10 ⁻²
ENST00000511313	POLR2J3	ENSG00000168255	RNA polymerase II subunit J3 [Source:HGNC Symbol;Acc:HGNC:33853]	2.654	1.620x10 ⁻⁴	4.265x10 ⁻²
ENST00000556327	AREL1	ENSG00000119682	apoptosis resistant E3 ubiquitin protein ligase 1 [Source:HGNC Symbol;Acc:HGNC:20363]	6.743	1.648x10 ⁻⁴	4.304x10 ⁻²
ENST00000491788	SMYD4	ENSG00000186532	SET and MYND domain containing 4 [Source:HGNC Symbol;Acc:HGNC:21067]	2.049	1.664x10 ⁻⁴	4.310x10 ⁻²
ENST00000515144	TRIO	ENSG00000038382	trio Rho guanine nucleotide exchange factor [Source:HGNC Symbol;Acc:HGNC:12303]	2.358	1.736x10 ⁻⁴	4.480x10 ⁻²
ENST00000512283	RBM14	ENSG00000239306	RNA binding motif protein 14 [Source:HGNC Symbol;Acc:HGNC:14219]	6.722	1.780x10 ⁻⁴	4.557x10 ⁻²
ENST00000482811	MAN1A2	ENSG00000198162	mannosidase alpha class 1A member 2 [Source:HGNC Symbol;Acc:HGNC:6822]	3.564	1.829x10 ⁻⁴	4.646x10 ⁻²
ENST00000392796	WDSUB1	ENSG00000196151	WD repeat, sterile alpha motif and U-box domain containing 1 [Source:HGNC Symbol;Acc:HGNC:26697]	6.665	1.858x10 ⁻⁴	4.662x10 ⁻²
ENST00000480737	FN1	ENSG00000115414	fibronectin 1 [Source:HGNC Symbol;Acc:HGNC:3778]	7.231	1.846x10 ⁻⁴	4.662x10 ⁻²
ENST00000623756	GGT5	ENSG00000099998	gamma-glutamyltransferase 5 [Source:HGNC Symbol;Acc:HGNC:4260]	2.222	1.902x10 ⁻⁴	4.738x10 ⁻²
ENST00000398093	DYNC2H1	ENSG00000187240	dynein cytoplasmic 2 heavy chain 1 [Source:HGNC Symbol;Acc:HGNC:2962]	1.439	1.979x10 ⁻⁴	4.892x10 ⁻²
ENST00000530961	CCS	ENSG00000173992	copper chaperone for superoxide dismutase [Source:HGNC Symbol;Acc:HGNC:1613]	6.597	1.998x10 ⁻⁴	4.922x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000409232	TGOLN2	ENSG00000152291	trans-golgi network protein 2 [Source:HGNC Symbol;Acc:HGNC:15450]	1.897	2.020x10 ⁻⁴	4.956x10 ⁻²
ENST00000494877	GABBR1	ENSG00000204681	gamma-aminobutyric acid type B receptor subunit 1 [Source:HGNC Symbol;Acc:HGNC:4070]	3.533	2.033x10 ⁻⁴	4.970x10 ⁻²

Appendix B Table B.2. Significantly downregulated transcripts upon exposure (113 transcripts)

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold change)	p-value	Adjusted p-value
ENST00000521309	YWHAZ	ENSG00000164924	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein zeta [Source:HGNC Symbol;Acc:HGNC:12855]	-10.970	7.755x10 ⁻¹⁸	5.042x10 ⁻¹³
ENST00000456676	MLH1	ENSG00000076242	mutL homolog 1 [Source:HGNC Symbol;Acc:HGNC:7127]	-21.580	2.096x10 ⁻¹⁴	2.271x10 ⁻¹⁰
ENST00000466122	BACE2	ENSG00000182240	beta-site APP-cleaving enzyme 2 [Source:HGNC Symbol;Acc:HGNC:934]	-21.560	2.505x10 ⁻¹⁴	2.327x10 ⁻¹⁰
ENST00000540357	DNMT1	ENSG00000130816	DNA methyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:2976]	-21.360	3.900x10 ⁻¹⁴	3.170x10 ⁻¹⁰
ENST00000542098	RMND5B	ENSG00000145916	required for meiotic nuclear division 5 homolog B [Source:HGNC Symbol;Acc:HGNC:26181]	-21.400	7.115x10 ⁻¹⁴	5.140x10 ⁻¹⁰
ENST00000371160	STAG2	ENSG00000101972	stromal antigen 2 [Source:HGNC Symbol;Acc:HGNC:11355]	-9.748	8.831x10 ⁻¹⁴	5.741x10 ⁻¹⁰
ENST00000557597	NUMB	ENSG00000133961	NUMB, endocytic adaptor protein [Source:HGNC Symbol;Acc:HGNC:8060]	-9.723	2.806x10 ⁻¹³	1.229x10 ⁻⁹
ENST00000396548	TRIM39	ENSG00000204599	tripartite motif containing 39 [Source:HGNC Symbol;Acc:HGNC:10065]	-9.767	2.796x10 ⁻¹³	1.229x10 ⁻⁹
ENST00000358030	RAD17	ENSG00000152942	RAD17 checkpoint clamp loader component [Source:HGNC Symbol;Acc:HGNC:9807]	-9.115	1.214x10 ⁻¹²	4.932x10 ⁻⁹
ENST00000446994	ZMYND8	ENSG00000101040	zinc finger MYND-type containing 8 [Source:HGNC Symbol;Acc:HGNC:9397]	-5.729	1.726x10 ⁻¹²	6.600x10 ⁻⁹
ENST00000563288	NFATC3	ENSG00000072736	nuclear factor of activated T-cells 3 [Source:HGNC Symbol;Acc:HGNC:7777]	-9.069	1.398x10 ⁻¹¹	4.782x10 ⁻⁸
ENST00000401393	INO80	ENSG00000128908	INO80 complex subunit [Source:HGNC Symbol;Acc:HGNC:26956]	-9.069	2.739x10 ⁻¹¹	8.904x10 ⁻⁸
ENST00000286186	CASP10	ENSG00000003400	caspase 10 [Source:HGNC Symbol;Acc:HGNC:1500]	-8.809	7.992x10 ⁻¹¹	2.259x10 ⁻⁷
ENST00000201015	PTHLH	ENSG00000087494	parathyroid hormone like hormone [Source:HGNC Symbol;Acc:HGNC:9607]	-9.079	1.585x10 ⁻¹⁰	4.121x10 ⁻⁷
ENST00000380764	WRNIP1	ENSG00000124535	Werner helicase interacting protein 1 [Source:HGNC Symbol;Acc:HGNC:20876]	-8.895	1.840x10 ⁻¹⁰	4.600x10 ⁻⁷
ENST00000520409	BNIP3L	ENSG00000104765	BCL2 interacting protein 3 like [Source:HGNC Symbol;Acc:HGNC:1085]	-2.781	1.966x10 ⁻¹⁰	4.733x10 ⁻⁷
ENST00000295566	YY1AP1	ENSG00000163374	YY1 associated protein 1 [Source:HGNC Symbol;Acc:HGNC:30935]	-8.842	3.597x10 ⁻¹⁰	8.353x10 ⁻⁷
ENST00000521459	DNPEP	ENSG00000123992	aspartyl aminopeptidase [Source:HGNC Symbol;Acc:HGNC:2981]	-8.585	4.615x10 ⁻¹⁰	1.000x10 ⁻⁶
ENST00000405925	LIG4	ENSG00000174405	DNA ligase 4 [Source:HGNC Symbol;Acc:HGNC:6601]	-8.670	1.839x10 ⁻⁹	3.736x10 ⁻⁶
ENST00000421797	MKLN1	ENSG00000128585	muskelin 1 [Source:HGNC Symbol;Acc:HGNC:7109]	-8.871	3.793x10 ⁻⁹	7.473x10 ⁻⁶
ENST00000596634	AKT2	ENSG00000105221	AKT serine/threonine kinase 2 [Source:HGNC Symbol;Acc:HGNC:392]	-8.421	4.784x10 ⁻⁹	9.148x10 ⁻⁶
ENST00000563459	EARS2	ENSG00000103356	glutamyl-tRNA synthetase 2, mitochondrial [Source:HGNC Symbol;Acc:HGNC:29419]	-5.718	8.682x10 ⁻⁹	1.485x10 ⁻⁵
ENST00000473991	PSMD2	ENSG00000175166	proteasome 26S subunit, non-ATPase 2 [Source:HGNC Symbol;Acc:HGNC:9559]	-8.827	9.386x10 ⁻⁹	1.565x10 ⁻⁵
ENST00000621302	BCL2L11	ENSG00000153094	BCL2 like 11 [Source:HGNC Symbol;Acc:HGNC:994]	-8.587	2.181x10 ⁻⁸	3.480x10 ⁻⁵
ENST00000345781	RBM10	ENSG00000182872	RNA binding motif protein 10 [Source:HGNC Symbol;Acc:HGNC:9896]	-21.77	2.554x10 ⁻⁸	3.862x10 ⁻⁵
ENST00000399537	TNRC18	ENSG00000182095	trinucleotide repeat containing 18 [Source:HGNC Symbol;Acc:HGNC:11962]	-21.73	2.711x10 ⁻⁸	3.917x10 ⁻⁵
ENST00000433674	CAPN2	ENSG00000162909	calpain 2 [Source:HGNC Symbol;Acc:HGNC:1479]	-8.371	2.786x10 ⁻⁸	3.938x10 ⁻⁵
ENST00000545703	KLHL13	ENSG00000003096	kelch like family member 13 [Source:HGNC Symbol;Acc:HGNC:22931]	-8.537	3.086x10 ⁻⁸	4.180x10 ⁻⁵
ENST00000557924	SLTM	ENSG00000137776	SAFB like transcription modulator [Source:HGNC Symbol;Acc:HGNC:20709]	-8.310	3.510x10 ⁻⁸	4.564x10 ⁻⁵
ENST00000391910	STRN4	ENSG00000090372	striatin 4 [Source:HGNC Symbol;Acc:HGNC:15721]	-8.154	1.123x10 ⁻⁷	1.328x10 ⁻⁴
ENST00000447133	PARP11	ENSG00000111224	poly(ADP-ribose) polymerase family member 11 [Source:HGNC Symbol;Acc:HGNC:1186]	-8.379	1.282x10 ⁻⁷	1.486x10 ⁻⁴
ENST00000326335	CUL4A	ENSG00000139842	cullin 4A [Source:HGNC Symbol;Acc:HGNC:2554]	-7.830	1.365x10 ⁻⁷	1.530x10 ⁻⁴
ENST00000375751	SYK	ENSG00000165025	spleen associated tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:11491]	-7.863	1.565x10 ⁻⁷	1.696x10 ⁻⁴
ENST00000478194	FERMT1	ENSG00000101311	fermitin family member 1 [Source:HGNC Symbol;Acc:HGNC:15889]	-8.103	1.619x10 ⁻⁷	1.698x10 ⁻⁴
ENST00000507150	HPSE	ENSG00000173083	heparanase [Source:HGNC Symbol;Acc:HGNC:5164]	-7.772	1.607x10 ⁻⁷	1.698x10 ⁻⁴
ENST00000620786	CLIP1	ENSG00000130779	CAP-Gly domain containing linker protein 1 [Source:HGNC Symbol;Acc:HGNC:10461]	-2.318	1.676x10 ⁻⁷	1.702x10 ⁻⁴
ENST00000604420	ODF2	ENSG00000136811	outer dense fiber of sperm tails 2 [Source:HGNC Symbol;Acc:HGNC:8114]	-8.035	1.900x10 ⁻⁷	1.901x10 ⁻⁴
ENST00000244364	DST	ENSG00000151914	dystonin [Source:HGNC Symbol;Acc:HGNC:1090]	-2.075	2.348x10 ⁻⁷	2.212x10 ⁻⁴
ENST00000513376	AASDH	ENSG00000157426	aminoadipate-semialdehyde dehydrogenase [Source:HGNC Symbol;Acc:HGNC:23993]	-7.844	4.278x10 ⁻⁷	3.566x10 ⁻⁴
ENST00000372915	MACF1	ENSG00000127603	microtubule-actin crosslinking factor 1 [Source:HGNC Symbol;Acc:HGNC:13664]	-8.990	5.397x10 ⁻⁷	4.279x10 ⁻⁴
ENST00000551003	PRR13	ENSG00000205352	proline rich 13 [Source:HGNC Symbol;Acc:HGNC:24528]	-7.681	7.041x10 ⁻⁷	5.385x10 ⁻⁴
ENST00000526821	ATPAF1	ENSG00000123472	ATP synthase mitochondrial F1 complex assembly factor 1 [Source:HGNC Symbol;Acc:HGNC:18803]	-7.630	7.688x10 ⁻⁷	5.616x10 ⁻⁴
ENST00000357472	MBNL1	ENSG00000152601	muscleblind like splicing regulator 1 [Source:HGNC Symbol;Acc:HGNC:6923]	-7.786	7.679x10 ⁻⁷	5.616x10 ⁻⁴
ENST00000557942	MEF2A	ENSG00000068305	myocyte enhancer factor 2A [Source:HGNC Symbol;Acc:HGNC:6993]	-7.565	8.392x10 ⁻⁷	5.996x10 ⁻⁴
ENST00000620998	WDR37	ENSG00000047056	WD repeat domain 37 [Source:HGNC Symbol;Acc:HGNC:31406]	-7.542	9.088x10 ⁻⁷	6.422x10 ⁻⁴

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold p-value	Adjusted p-value
ENST00000468657	ALG13	ENSG00000101901	ALG13, UDP-N-acetylglucosaminyltransferase subunit [Source:HGNC Symbol;Acc:HGNC:30881]	-6.279 9.336x10 ⁻⁷	6.527x10 ⁻⁴
ENST00000446923	ZEB1	ENSG00000148516	zinc finger E-box binding homeobox 1 [Source:HGNC Symbol;Acc:HGNC:11642]	-5.806 9.681x10 ⁻⁷	6.696x10 ⁻⁴
ENST00000427431	WWC2	ENSG00000151718	WW and C2 domain containing 2 [Source:HGNC Symbol;Acc:HGNC:24148]	-8.532 1.168x10 ⁻⁶	7.828x10 ⁻⁴
ENST00000371714	OSBPL9	ENSG00000117859	oxysterol binding protein like 9 [Source:HGNC Symbol;Acc:HGNC:16386]	-7.539 1.189x10 ⁻⁶	7.885x10 ⁻⁴
ENST00000612959	NSRP1	ENSG00000126653	nuclear speckle splicing regulatory protein 1 [Source:HGNC Symbol;Acc:HGNC:25305]	-7.519 1.239x10 ⁻⁶	8.057x10 ⁻⁴
ENST00000529464	FDFT1	ENSG00000079459	farnesyl-diphosphate farnesyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:3629]	-8.139 1.362x10 ⁻⁶	8.764x10 ⁻⁴
ENST00000494733	TLN2	ENSG00000171914	talin 2 [Source:HGNC Symbol;Acc:HGNC:15447]	-7.591 1.598x10 ⁻⁶	9.989x10 ⁻⁴
ENST00000552645	LETMD1	ENSG00000050426	LETM1 domain containing 1 [Source:HGNC Symbol;Acc:HGNC:24241]	-7.717 1.771x10 ⁻⁶	1.096x10 ⁻³
ENST00000377728	PLEKHG5	ENSG00000171680	pleckstrin homology and RhoGEF domain containing G5 [Source:HGNC Symbol;Acc:HGNC:29105]	-7.455 1.795x10 ⁻⁶	1.101x10 ⁻³
ENST00000340309	UBE2V1	ENSG00000244687	ubiquitin conjugating enzyme E2 V1 [Source:HGNC Symbol;Acc:HGNC:12494]	-7.470 1.956x10 ⁻⁶	1.178x10 ⁻³
ENST00000545939	MAP3K7CL	ENSG00000156265	MAP3K7 C-terminal like [Source:HGNC Symbol;Acc:HGNC:16457]	-7.474 2.033x10 ⁻⁶	1.213x10 ⁻³
ENST00000404802	MPST	ENSG00000128309	mercaptopyruvate sulfurtransferase [Source:HGNC Symbol;Acc:HGNC:7223]	-7.499 2.125x10 ⁻⁶	1.256x10 ⁻³
ENST00000372705	ZFP69	ENSG00000187815	ZFP69 zinc finger protein [Source:HGNC Symbol;Acc:HGNC:24708]	-7.414 2.524x10 ⁻⁶	1.465x10 ⁻³
ENST00000378425	FAM213B	ENSG00000157870	family with sequence similarity 213 member B [Source:HGNC Symbol;Acc:HGNC:28390]	-7.603 2.781x10 ⁻⁶	1.600x10 ⁻³
ENST00000237163	DOPEY1	ENSG00000083097	dopey family member 1 [Source:HGNC Symbol;Acc:HGNC:21194]	-8.378 3.119x10 ⁻⁶	1.779x10 ⁻³
ENST00000412671	DGLUCY	ENSG00000133943	chromosome 14 open reading frame 159 [Source:HGNC Symbol;Acc:HGNC:20498]	-5.862 3.690x10 ⁻⁶	2.068x10 ⁻³
ENST00000408905	BCAS3	ENSG00000141376	BCAS3, microtubule associated cell migration factor [Source:HGNC Symbol;Acc:HGNC:14347]	-7.491 3.983x10 ⁻⁶	2.176x10 ⁻³
ENST00000560396	IDH3A	ENSG00000166411	isocitrate dehydrogenase 3 (NAD(+)) alpha [Source:HGNC Symbol;Acc:HGNC:5384]	-7.286 4.478x10 ⁻⁶	2.406x10 ⁻³
ENST00000262975	ZMYND8	ENSG00000101040	zinc finger MYND-type containing 8 [Source:HGNC Symbol;Acc:HGNC:9397]	-7.276 5.335x10 ⁻⁶	2.797x10 ⁻³
ENST00000529177	STX3	ENSG00000166900	syntaxin 3 [Source:HGNC Symbol;Acc:HGNC:11438]	-7.267 5.546x10 ⁻⁶	2.884x10 ⁻³
ENST00000343280	ZNF772	ENSG00000197128	zinc finger protein 772 [Source:HGNC Symbol;Acc:HGNC:33106]	-7.366 6.642x10 ⁻⁶	3.322x10 ⁻³
ENST00000311966	GLS2	ENSG00000135423	glutaminase 2 [Source:HGNC Symbol;Acc:HGNC:29570]	-6.036 7.144x10 ⁻⁶	3.519x10 ⁻³
ENST00000392149	ZNF569	ENSG00000196437	zinc finger protein 569 [Source:HGNC Symbol;Acc:HGNC:24737]	-7.487 8.176x10 ⁻⁶	3.996x10 ⁻³
ENST00000409907	IQCA1	ENSG00000132321	IQ motif containing with AAA domain 1 [Source:HGNC Symbol;Acc:HGNC:26195]	-7.186 9.315x10 ⁻⁶	4.519x10 ⁻³
ENST00000224652	ATE1	ENSG00000107669	arginyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:782]	-7.666 9.951x10 ⁻⁶	4.792x10 ⁻³
ENST00000472884	FAM53A	ENSG00000174137	family with sequence similarity 53 member A [Source:HGNC Symbol;Acc:HGNC:31860]	-7.144 1.194x10 ⁻⁵	5.623x10 ⁻³
ENST00000585688	ZNF562	ENSG00000171466	zinc finger protein 562 [Source:HGNC Symbol;Acc:HGNC:25950]	-7.072 1.652x10 ⁻⁵	7.513x10 ⁻³
ENST00000551632	DTX3	ENSG00000178498	deltex E3 ubiquitin ligase 3 [Source:HGNC Symbol;Acc:HGNC:24457]	-7.310 1.652x10 ⁻⁵	7.513x10 ⁻³
ENST00000473598	LMNA	ENSG00000160789	lamin A/C [Source:HGNC Symbol;Acc:HGNC:6636]	-7.272 1.735x10 ⁻⁵	7.627x10 ⁻³
ENST00000262233	EML1	ENSG00000066629	echinoderm microtubule associated protein like 1 [Source:HGNC Symbol;Acc:HGNC:3330]	-7.130 1.699x10 ⁻⁵	7.627x10 ⁻³
ENST00000543881	GABPB1	ENSG00000104064	GA binding protein transcription factor beta subunit 1 [Source:HGNC Symbol;Acc:HGNC:4074]	-7.316 2.055x10 ⁻⁵	8.790x10 ⁻³
ENST00000639264	LRR8B	ENSG00000197147	leucine rich repeat containing 8 family member B [Source:HGNC Symbol;Acc:HGNC:30692]	-7.143 2.216x10 ⁻⁵	9.296x10 ⁻³
ENST00000569766	NFATC3	ENSG00000072736	nuclear factor of activated T-cells 3 [Source:HGNC Symbol;Acc:HGNC:7777]	-5.344 2.995x10 ⁻⁵	1.195x10 ⁻²
ENST00000545162	SOD2	ENSG00000112096	superoxide dismutase 2 [Source:HGNC Symbol;Acc:HGNC:11180]	-6.931 3.573x10 ⁻⁵	1.367x10 ⁻²
ENST00000552588	RPL18	ENSG00000063177	ribosomal protein L18 [Source:HGNC Symbol;Acc:HGNC:10310]	-6.966 3.660x10 ⁻⁵	1.384x10 ⁻²
ENST00000368210	PTPRK	ENSG00000152894	protein tyrosine phosphatase, receptor type K [Source:HGNC Symbol;Acc:HGNC:9674]	-7.045 3.729x10 ⁻⁵	1.402x10 ⁻²
ENST00000483320	TEDC2	ENSG00000162062	tubulin epsilon and delta complex 2 [Source:HGNC Symbol;Acc:HGNC:25849]	-7.666 3.824x10 ⁻⁵	1.429x10 ⁻²
ENST00000538864	HEATR5A	ENSG00000129493	HEAT repeat containing 5A [Source:HGNC Symbol;Acc:HGNC:20276]	-7.001 4.318x10 ⁻⁵	1.586x10 ⁻²
ENST00000613570	CACYBP	ENSG00000116161	calcyclin binding protein [Source:HGNC Symbol;Acc:HGNC:30423]	-2.057 4.462x10 ⁻⁵	1.621x10 ⁻²
ENST00000467473	ALDH3A2	ENSG00000072210	aldehyde dehydrogenase 3 family member A2 [Source:HGNC Symbol;Acc:HGNC:403]	-7.181 4.620x10 ⁻⁵	1.669x10 ⁻²
ENST00000635758	ATG5	ENSG00000057663	autophagy related 5 [Source:HGNC Symbol;Acc:HGNC:589]	-9.682 5.212x10 ⁻⁵	1.852x10 ⁻²
ENST00000368262	CCT3	ENSG00000163468	chaperonin containing TCP1 subunit 3 [Source:HGNC Symbol;Acc:HGNC:1616]	-7.071 5.455x10 ⁻⁵	1.920x10 ⁻²
ENST00000391956	ZNF180	ENSG00000167384	zinc finger protein 180 [Source:HGNC Symbol;Acc:HGNC:12970]	-7.247 5.895x10 ⁻⁵	2.010x10 ⁻²
ENST00000432700	APOL3	ENSG00000128284	apolipoprotein L3 [Source:HGNC Symbol;Acc:HGNC:14868]	-6.846 5.893x10 ⁻⁵	2.010x10 ⁻²
ENST00000445275	TOM1L1	ENSG00000141198	target of myb1 like 1 membrane trafficking protein [Source:HGNC Symbol;Acc:HGNC:11983]	-1.098 6.670x10 ⁻⁵	2.235x10 ⁻²
ENST00000425394	PAN2	ENSG00000135473	PAN2 poly(A) specific ribonuclease subunit [Source:HGNC Symbol;Acc:HGNC:20074]	-6.976 6.926x10 ⁻⁵	2.274x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold change)	p-value	Adjusted p-value
ENST00000549338	SLC25A3	ENSG00000075415	solute carrier family 25 member 3 [Source:HGNC Symbol;Acc:HGNC:10989]	-6.870	6.924x10 ⁻⁵	2.274x10 ⁻²
ENST00000394426	RARG	ENSG00000172819	retinoic acid receptor gamma [Source:HGNC Symbol;Acc:HGNC:9866]	-6.859	7.040x10 ⁻⁵	2.288x10 ⁻²
ENST00000618296	BTBD3	ENSG00000132640	BTB domain containing 3 [Source:HGNC Symbol;Acc:HGNC:15854]	-3.828	7.195x10 ⁻⁵	2.327x10 ⁻²
ENST00000524124	ASAP1	ENSG00000153317	ArfGAP with SH3 domain, ankyrin repeat and PH domain 1 [Source:HGNC Symbol;Acc:HGNC:2720]	-3.079	8.000x10 ⁻⁵	2.491x10 ⁻²
ENST00000522509	STAU2	ENSG00000040341	staufen double-stranded RNA binding protein 2 [Source:HGNC Symbol;Acc:HGNC:11371]	-6.985	8.430x10 ⁻⁵	2.561x10 ⁻²
ENST00000498239	CEPT1	ENSG00000134255	choline/ethanolamine phosphotransferase 1 [Source:HGNC Symbol;Acc:HGNC:24289]	-3.921	9.136x10 ⁻⁵	2.725x10 ⁻²
ENST00000259818	TUBB2B	ENSG00000137285	tubulin beta 2B class IIb [Source:HGNC Symbol;Acc:HGNC:30829]	-6.781	9.661x10 ⁻⁵	2.842x10 ⁻²
ENST00000614069	ZNF345	ENSG00000251247	zinc finger protein 345 [Source:HGNC Symbol;Acc:HGNC:16367]	-6.794	1.017x10 ⁻⁴	2.951x10 ⁻²
ENST00000395745	DHX30	ENSG00000132153	DExH-box helicase 30 [Source:HGNC Symbol;Acc:HGNC:16716]	-4.833	1.054x10 ⁻⁴	3.031x10 ⁻²
ENST00000450966	USP40	ENSG00000085982	ubiquitin specific peptidase 40 [Source:HGNC Symbol;Acc:HGNC:20069]	-4.759	1.102x10 ⁻⁴	3.116x10 ⁻²
ENST00000454077	ATXN7L3	ENSG00000087152	ataxin 7 like 3 [Source:HGNC Symbol;Acc:HGNC:25416]	-1.661	1.280x10 ⁻⁴	3.558x10 ⁻²
ENST00000538171	TRAP1	ENSG00000126602	TNF receptor associated protein 1 [Source:HGNC Symbol;Acc:HGNC:16264]	-6.818	1.436x10 ⁻⁴	3.874x10 ⁻²
ENST00000292069	ZNF667	ENSG00000198046	zinc finger protein 667 [Source:HGNC Symbol;Acc:HGNC:28854]	-6.746	1.424x10 ⁻⁴	3.874x10 ⁻²
ENST00000576229	RNF167	ENSG00000108523	ring finger protein 167 [Source:HGNC Symbol;Acc:HGNC:24544]	-1.672	1.518x10 ⁻⁴	4.045x10 ⁻²
ENST00000340660	ATXN3	ENSG00000066427	ataxin 3 [Source:HGNC Symbol;Acc:HGNC:7106]	-6.813	1.566x10 ⁻⁴	4.140x10 ⁻²
ENST00000575576	THOC6	ENSG00000131652	THO complex 6 [Source:HGNC Symbol;Acc:HGNC:28369]	-6.703	1.628x10 ⁻⁴	4.268x10 ⁻²
ENST00000361509	IGSF9	ENSG00000085552	immunoglobulin superfamily member 9 [Source:HGNC Symbol;Acc:HGNC:18132]	-6.633	1.655x10 ⁻⁴	4.304x10 ⁻²
ENST00000490838	ITPA	ENSG00000125877	inosine triphosphatase [Source:HGNC Symbol;Acc:HGNC:6176]	-6.891	1.751x10 ⁻⁴	4.499x10 ⁻²
ENST00000539097	HIF1A	ENSG00000100644	hypoxia inducible factor 1 alpha subunit [Source:HGNC Symbol;Acc:HGNC:4910]	-1.899	1.816x10 ⁻⁴	4.631x10 ⁻²
ENST00000326009	DCAF11	ENSG00000100897	DDB1 and CUL4 associated factor 11 [Source:HGNC Symbol;Acc:HGNC:20258]	-1.152	1.864x10 ⁻⁴	4.662x10 ⁻²
ENST00000371724	SLC29A1	ENSG00000112759	solute carrier family 29 member 1 (Augustine blood group) [Source:HGNC Symbol;Acc:HGNC:11003]	-6.756	1.855x10 ⁻⁴	4.662x10 ⁻²
ENST00000549135	PRR13	ENSG00000205352	proline rich 13 [Source:HGNC Symbol;Acc:HGNC:24528]	-1.581	1.922x10 ⁻⁴	4.770x10 ⁻²

Appendix B Table B.3. Significantly oxidized transcripts upon exposure (222 oxidized transcripts)

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000640219	HLA-C	ENSG00000204525	major histocompatibility complex, class I, C [Source:HGNC Symbol;Acc:HGNC:4933]	14.61	9.435x10 ⁻⁷	1.516x10 ⁻²
ENST00000488464	TPI1	ENSG00000111669	triosephosphate isomerase 1 [Source:HGNC Symbol;Acc:HGNC:12009]	14.49	1.122x10 ⁻⁶	1.516x10 ⁻²
ENST00000394867	MAP2K2	ENSG00000126934	mitogen-activated protein kinase kinase 2 [Source:HGNC Symbol;Acc:HGNC:6842]	13.80	2.498x10 ⁻⁶	1.516x10 ⁻²
ENST00000507327	RPS3A	ENSG00000145425	ribosomal protein S3A [Source:HGNC Symbol;Acc:HGNC:10421]	13.75	2.861x10 ⁻⁶	1.516x10 ⁻²
ENST00000540357	DNMT1	ENSG00000130816	DNA methyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:2976]	13.31	4.730x10 ⁻⁶	1.516x10 ⁻²
ENST00000513206	TRIO	ENSG00000038382	trio Rho guanine nucleotide exchange factor [Source:HGNC Symbol;Acc:HGNC:12303]	13.28	4.599x10 ⁻⁶	1.516x10 ⁻²
ENST00000426496	PRRC2C	ENSG00000117523	proline rich coiled-coil 2C [Source:HGNC Symbol;Acc:HGNC:24903]	13.07	5.983x10 ⁻⁶	1.516x10 ⁻²
ENST00000526792	RPS6KA1	ENSG00000117676	ribosomal protein S6 kinase A1 [Source:HGNC Symbol;Acc:HGNC:10430]	13.04	6.415x10 ⁻⁶	1.516x10 ⁻²
ENST00000563270	RPL13	ENSG00000167526	ribosomal protein L13 [Source:HGNC Symbol;Acc:HGNC:10303]	13.02	6.439x10 ⁻⁶	1.516x10 ⁻²
ENST00000473598	LMNA	ENSG00000160789	lamin A/C [Source:HGNC Symbol;Acc:HGNC:6636]	12.92	7.261x10 ⁻⁶	1.516x10 ⁻²
ENST00000440126	APP	ENSG00000142192	amyloid beta precursor protein [Source:HGNC Symbol;Acc:HGNC:620]	12.89	7.540x10 ⁻⁶	1.516x10 ⁻²
ENST00000630255	DDX3X	ENSG00000215301	DEAD-box helicase 3, X-linked [Source:HGNC Symbol;Acc:HGNC:2745]	12.86	8.227x10 ⁻⁶	1.516x10 ⁻²
ENST00000589265	GRN	ENSG00000030582	granulin precursor [Source:HGNC Symbol;Acc:HGNC:4601]	12.86	7.853x10 ⁻⁶	1.516x10 ⁻²
ENST00000553213	RPL6	ENSG00000089009	ribosomal protein L6 [Source:HGNC Symbol;Acc:HGNC:10362]	12.81	8.644x10 ⁻⁶	1.516x10 ⁻²
ENST00000448611	LMNA	ENSG00000160789	lamin A/C [Source:HGNC Symbol;Acc:HGNC:6636]	12.80	8.935x10 ⁻⁶	1.516x10 ⁻²
ENST00000535270	POLE	ENSG00000177084	DNA polymerase epsilon, catalytic subunit [Source:HGNC Symbol;Acc:HGNC:9177]	12.58	1.199x10 ⁻⁵	1.754x10 ⁻²
ENST00000504342	ACSL1	ENSG00000151726	acyl-CoA synthetase long-chain family member 1 [Source:HGNC Symbol;Acc:HGNC:3569]	12.44	1.364x10 ⁻⁵	1.754x10 ⁻²
ENST00000450966	USP40	ENSG00000085982	ubiquitin specific peptidase 40 [Source:HGNC Symbol;Acc:HGNC:20069]	12.41	1.438x10 ⁻⁵	1.754x10 ⁻²
ENST00000490151	AP2M1	ENSG00000161203	adaptor related protein complex 2 mu 1 subunit [Source:HGNC Symbol;Acc:HGNC:564]	12.38	1.492x10 ⁻⁵	1.754x10 ⁻²
ENST00000538610	PSMA5	ENSG00000143106	proteasome subunit alpha 5 [Source:HGNC Symbol;Acc:HGNC:9534]	12.34	1.564x10 ⁻⁵	1.754x10 ⁻²
ENST00000474902	MAN1B1	ENSG00000177239	mannosidase alpha class 1B member 1 [Source:HGNC Symbol;Acc:HGNC:6823]	12.31	1.624x10 ⁻⁵	1.754x10 ⁻²
ENST00000532772	INTS11	ENSG00000127054	integrator complex subunit 11 [Source:HGNC Symbol;Acc:HGNC:26052]	12.29	1.655x10 ⁻⁵	1.754x10 ⁻²
ENST00000435887	PPP1R16A	ENSG00000160972	protein phosphatase 1 regulatory subunit 16A [Source:HGNC Symbol;Acc:HGNC:14941]	12.29	1.652x10 ⁻⁵	1.754x10 ⁻²
ENST00000375066	TBC1D2	ENSG00000095383	TBC1 domain family member 2 [Source:HGNC Symbol;Acc:HGNC:18026]	12.26	1.709x10 ⁻⁵	1.756x10 ⁻²
ENST00000523200	TNIP1	ENSG00000145901	TNFAIP3 interacting protein 1 [Source:HGNC Symbol;Acc:HGNC:16903]	12.22	1.813x10 ⁻⁵	1.757x10 ⁻²
ENST00000586016	SLC25A39	ENSG00000013306	solute carrier family 25 member 39 [Source:HGNC Symbol;Acc:HGNC:24279]	12.20	1.906x10 ⁻⁵	1.796x10 ⁻²
ENST00000526975	CFL1	ENSG00000172757	cofilin 1 [Source:HGNC Symbol;Acc:HGNC:1874]	12.17	2.039x10 ⁻⁵	1.802x10 ⁻²
ENST00000541170	LUC7L2	ENSG00000146963	LUC7 like 2, pre-mRNA splicing factor [Source:HGNC Symbol;Acc:HGNC:21608]	12.08	2.208x10 ⁻⁵	1.861x10 ⁻²
ENST00000547517	RAB5C	ENSG00000108774	RAB5C, member RAS oncogene family [Source:HGNC Symbol;Acc:HGNC:9785]	12.02	2.441x10 ⁻⁵	1.861x10 ⁻²
ENST00000555002	SYNE2	ENSG00000054654	spectrin repeat containing nuclear envelope protein 2 [Source:HGNC Symbol;Acc:HGNC:17084]	11.99	2.472x10 ⁻⁵	1.861x10 ⁻²
ENST00000573116	MYBBP1A	ENSG00000132382	MYB binding protein 1a [Source:HGNC Symbol;Acc:HGNC:7546]	11.99	2.504x10 ⁻⁵	1.861x10 ⁻²
ENST00000640668	DDX17	ENSG00000100201	DEAD-box helicase 17 [Source:HGNC Symbol;Acc:HGNC:2740]	11.89	2.845x10 ⁻⁵	1.957x10 ⁻²
ENST00000451956	GNAI2	ENSG00000114353	G protein subunit alpha i2 [Source:HGNC Symbol;Acc:HGNC:4385]	11.81	3.403x10 ⁻⁵	2.160x10 ⁻²
ENST00000529464	FDFT1	ENSG00000079459	farnesyl-diphosphate farnesyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:3629]	11.77	3.331x10 ⁻⁵	2.160x10 ⁻²
ENST00000554557	ZFYVE26	ENSG00000072121	zinc finger FYVE-type containing 26 [Source:HGNC Symbol;Acc:HGNC:20761]	11.76	3.497x10 ⁻⁵	2.160x10 ⁻²
ENST00000449030	CAPG	ENSG00000042493	capping actin protein, gelsolin like [Source:HGNC Symbol;Acc:HGNC:1474]	11.74	3.503x10 ⁻⁵	2.160x10 ⁻²
ENST00000573784	BSG	ENSG00000172270	basigin (Ok blood group) [Source:HGNC Symbol;Acc:HGNC:1116]	11.70	3.778x10 ⁻⁵	2.224x10 ⁻²
ENST00000557020	CALM1	ENSG00000198668	calmodulin 1 [Source:HGNC Symbol;Acc:HGNC:1442]	11.67	4.013x10 ⁻⁵	2.224x10 ⁻²
ENST00000505173	SPAG9	ENSG00000008294	sperm associated antigen 9 [Source:HGNC Symbol;Acc:HGNC:14524]	11.67	3.997x10 ⁻⁵	2.224x10 ⁻²
ENST00000471204	RPL22	ENSG00000116251	ribosomal protein L22 [Source:HGNC Symbol;Acc:HGNC:10315]	11.63	4.229x10 ⁻⁵	2.224x10 ⁻²
ENST00000610930	MYO19	ENSG00000278259	myosin XIX [Source:HGNC Symbol;Acc:HGNC:26234]	11.62	4.269x10 ⁻⁵	2.224x10 ⁻²
ENST00000413095	OS9	ENSG00000135506	OS9, endoplasmic reticulum lectin [Source:HGNC Symbol;Acc:HGNC:16994]	11.61	4.285x10 ⁻⁵	2.224x10 ⁻²
ENST00000557508	PSMA3	ENSG00000100567	proteasome subunit alpha 3 [Source:HGNC Symbol;Acc:HGNC:9532]	11.59	4.600x10 ⁻⁵	2.224x10 ⁻²
ENST00000553556	FRMD6	ENSG00000139926	FERM domain containing 6 [Source:HGNC Symbol;Acc:HGNC:19839]	11.59	4.380x10 ⁻⁵	2.224x10 ⁻²
ENST00000438031	TMED2	ENSG00000086598	transmembrane p24 trafficking protein 2 [Source:HGNC Symbol;Acc:HGNC:16996]	11.54	4.790x10 ⁻⁵	2.224x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000360160	DDX3Y	ENSG00000067048	DEAD-box helicase 3, Y-linked [Source:HGNC Symbol;Acc:HGNC:2699]	11.53	4.953x10 ⁻⁵	2.224x10 ⁻²
ENST00000567887	MACF1	ENSG00000127603	microtubule-actin crosslinking factor 1 [Source:HGNC Symbol;Acc:HGNC:13664]	11.51	4.839x10 ⁻⁵	2.224x10 ⁻²
ENST00000540132	ALDH16A1	ENSG00000161618	aldehyde dehydrogenase 16 family member A1 [Source:HGNC Symbol;Acc:HGNC:28114]	11.48	5.213x10 ⁻⁵	2.224x10 ⁻²
ENST00000617797	CUL1	ENSG00000055130	cullin 1 [Source:HGNC Symbol;Acc:HGNC:2551]	11.46	5.435x10 ⁻⁵	2.224x10 ⁻²
ENST00000515193	HNRNPAB	ENSG00000197451	heterogeneous nuclear ribonucleoprotein A/B [Source:HGNC Symbol;Acc:HGNC:5034]	11.43	5.397x10 ⁻⁵	2.224x10 ⁻²
ENST00000518668	DENND3	ENSG00000105339	DENN domain containing 3 [Source:HGNC Symbol;Acc:HGNC:29134]	11.42	5.660x10 ⁻⁵	2.224x10 ⁻²
ENST00000588657	ILF3	ENSG00000129351	interleukin enhancer binding factor 3 [Source:HGNC Symbol;Acc:HGNC:6038]	11.40	6.075x10 ⁻⁵	2.224x10 ⁻²
ENST00000610907	PABPC1	ENSG00000070756	poly(A) binding protein cytoplasmic 1 [Source:HGNC Symbol;Acc:HGNC:8554]	11.39	5.687x10 ⁻⁵	2.224x10 ⁻²
ENST00000528634	C11orf58	ENSG00000110696	chromosome 11 open reading frame 58 [Source:HGNC Symbol;Acc:HGNC:16990]	11.39	6.036x10 ⁻⁵	2.224x10 ⁻²
ENST00000432588	ACTB	ENSG00000075624	actin beta [Source:HGNC Symbol;Acc:HGNC:132]	11.39	7.276x10 ⁻⁶	1.516x10 ⁻²
ENST00000571961	JRK	ENSG00000234616	Jrk helix-turn-helix protein [Source:HGNC Symbol;Acc:HGNC:6199]	11.38	5.981x10 ⁻⁵	2.224x10 ⁻²
ENST00000534454	OSBPL5	ENSG00000021762	oxysterol binding protein like 5 [Source:HGNC Symbol;Acc:HGNC:16392]	11.36	6.164x10 ⁻⁵	2.224x10 ⁻²
ENST00000612035	AP2B1	ENSG00000006125	adaptor related protein complex 2 beta 1 subunit [Source:HGNC Symbol;Acc:HGNC:563]	11.35	6.797x10 ⁻⁵	2.224x10 ⁻²
ENST00000616026	MTSS1L	ENSG00000132613	MTSS1L, I-BAR domain containing [Source:HGNC Symbol;Acc:HGNC:25094]	11.35	6.139x10 ⁻⁵	2.224x10 ⁻²
ENST00000590129	KIF18B	ENSG00000186185	kinesin family member 18B [Source:HGNC Symbol;Acc:HGNC:27102]	11.34	6.386x10 ⁻⁵	2.224x10 ⁻²
ENST00000520953	SREK1	ENSG00000153914	splicing regulatory glutamic acid and lysine rich protein 1 [Source:HGNC Symbol;Acc:HGNC:17882]	11.33	6.488x10 ⁻⁵	2.224x10 ⁻²
ENST00000455217	TARS	ENSG00000113407	threonyl-tRNA synthetase [Source:HGNC Symbol;Acc:HGNC:11572]	11.33	6.631x10 ⁻⁵	2.224x10 ⁻²
ENST00000506889	MGAT1	ENSG00000131446	mannosyl (alpha-1,3-)-glycoprotein beta-1,2-N-acetylglucosaminyltransferase [Source:HGNC Symbol	11.32	6.462x10 ⁻⁵	2.224x10 ⁻²
ENST00000392348	BCLAF1	ENSG00000029363	BCL2 associated transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:16863]	11.31	6.804x10 ⁻⁵	2.224x10 ⁻²
ENST00000583369	SLC9A3R1	ENSG00000109062	SLC9A3 regulator 1 [Source:HGNC Symbol;Acc:HGNC:11075]	11.30	2.072x10 ⁻⁵	1.802x10 ⁻²
ENST00000413447	CYCS	ENSG00000172115	cytochrome c, somatic [Source:HGNC Symbol;Acc:HGNC:19986]	11.29	6.894x10 ⁻⁵	2.224x10 ⁻²
ENST00000417172	CALD1	ENSG00000122786	caldesmon 1 [Source:HGNC Symbol;Acc:HGNC:1441]	11.29	7.009x10 ⁻⁵	2.224x10 ⁻²
ENST00000394600	MTIF2	ENSG00000085760	mitochondrial translational initiation factor 2 [Source:HGNC Symbol;Acc:HGNC:7441]	11.27	7.046x10 ⁻⁵	2.224x10 ⁻²
ENST00000372216	COL4A6	ENSG00000197565	collagen type IV alpha 6 chain [Source:HGNC Symbol;Acc:HGNC:2208]	11.25	7.082x10 ⁻⁵	2.224x10 ⁻²
ENST00000562200	COG4	ENSG00000103051	component of oligomeric golgi complex 4 [Source:HGNC Symbol;Acc:HGNC:18620]	11.19	7.897x10 ⁻⁵	2.331x10 ⁻²
ENST00000361557	PJA2	ENSG00000198961	praja ring finger ubiquitin ligase 2 [Source:HGNC Symbol;Acc:HGNC:17481]	11.19	7.625x10 ⁻⁵	2.288x10 ⁻²
ENST00000552720	LIMA1	ENSG00000050405	LIM domain and actin binding 1 [Source:HGNC Symbol;Acc:HGNC:24636]	11.17	8.253x10 ⁻⁵	2.336x10 ⁻²
ENST00000508261	IRX4	ENSG00000113430	iroquois homeobox 4 [Source:HGNC Symbol;Acc:HGNC:6129]	11.16	8.229x10 ⁻⁵	2.336x10 ⁻²
ENST00000491183	HMGN1	ENSG00000205581	high mobility group nucleosome binding domain 1 [Source:HGNC Symbol;Acc:HGNC:4984]	11.15	8.478x10 ⁻⁵	2.336x10 ⁻²
ENST00000549394	DCTN2	ENSG00000175203	dynactin subunit 2 [Source:HGNC Symbol;Acc:HGNC:2712]	11.13	8.389x10 ⁻⁵	2.336x10 ⁻²
ENST00000573029	RSL1D1	ENSG00000171490	ribosomal L1 domain containing 1 [Source:HGNC Symbol;Acc:HGNC:24534]	11.12	8.936x10 ⁻⁵	2.394x10 ⁻²
ENST00000508466	LIMCH1	ENSG00000064042	LIM and calponin homology domains 1 [Source:HGNC Symbol;Acc:HGNC:29191]	11.11	8.964x10 ⁻⁵	2.394x10 ⁻²
ENST00000558865	GMPR2	ENSG00000100938	guanosine monophosphate reductase 2 [Source:HGNC Symbol;Acc:HGNC:4377]	11.09	9.277x10 ⁻⁵	2.420x10 ⁻²
ENST00000537919	ACLY	ENSG00000131473	ATP citrate lyase [Source:HGNC Symbol;Acc:HGNC:115]	11.08	9.050x10 ⁻⁵	2.398x10 ⁻²
ENST00000414083	DAXX	ENSG00000204209	death domain associated protein [Source:HGNC Symbol;Acc:HGNC:2681]	11.06	9.264x10 ⁻⁵	2.420x10 ⁻²
ENST00000417287	CAP1	ENSG00000131236	adenylate cyclase associated protein 1 [Source:HGNC Symbol;Acc:HGNC:20040]	11.06	9.689x10 ⁻⁵	2.471x10 ⁻²
ENST00000447245	SLC25A46	ENSG00000164209	solute carrier family 25 member 46 [Source:HGNC Symbol;Acc:HGNC:25198]	11.02	1.058x10 ⁻⁴	2.620x10 ⁻²
ENST00000601545	SNRPA	ENSG00000077312	small nuclear ribonucleoprotein polypeptide A [Source:HGNC Symbol;Acc:HGNC:11151]	11.00	1.069x10 ⁻⁴	2.628x10 ⁻²
ENST00000407633	BZW2	ENSG00000136261	basic leucine zipper and W2 domains 2 [Source:HGNC Symbol;Acc:HGNC:18808]	10.99	1.092x10 ⁻⁴	2.660x10 ⁻²
ENST00000499879	STK4	ENSG00000101109	serine/threonine kinase 4 [Source:HGNC Symbol;Acc:HGNC:11408]	10.98	1.098x10 ⁻⁴	2.660x10 ⁻²
ENST00000614646	STON2	ENSG00000140022	stonin 2 [Source:HGNC Symbol;Acc:HGNC:30652]	10.96	1.140x10 ⁻⁴	2.682x10 ⁻²
ENST00000534779	GANAB	ENSG00000089597	glucosidase II alpha subunit [Source:HGNC Symbol;Acc:HGNC:4138]	10.95	5.669x10 ⁻⁵	2.224x10 ⁻²
ENST00000485046	PLOD1	ENSG00000083444	procollagen-lysine,2-oxoglutarate 5-dioxygenase 1 [Source:HGNC Symbol;Acc:HGNC:9081]	10.94	1.186x10 ⁻⁴	2.682x10 ⁻²
ENST00000579645	USP22	ENSG00000124422	ubiquitin specific peptidase 22 [Source:HGNC Symbol;Acc:HGNC:12621]	10.88	1.321x10 ⁻⁴	2.842x10 ⁻²
ENST00000508863	MRPS27	ENSG00000113048	mitochondrial ribosomal protein S27 [Source:HGNC Symbol;Acc:HGNC:14512]	10.86	1.331x10 ⁻⁴	2.842x10 ⁻²
ENST00000409242	EXD2	ENSG00000081177	exonuclease 3'-5' domain containing 2 [Source:HGNC Symbol;Acc:HGNC:20217]	10.86	1.341x10 ⁻⁴	2.842x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000638607	SPATA5L1	ENSG00000171763	spermatogenesis associated 5 like 1 [Source:HGNC Symbol;Acc:HGNC:28762]	10.85	1.360x10 ⁻⁴	2.847x10 ⁻²
ENST00000474715	YWHAQ	ENSG00000134308	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein theta [Source:HGNC Sy	10.84	1.351x10 ⁻⁴	2.846x10 ⁻²
ENST00000477977	NOLC1	ENSG00000166197	nucleolar and coiled-body phosphoprotein 1 [Source:HGNC Symbol;Acc:HGNC:15608]	10.81	1.386x10 ⁻⁴	2.848x10 ⁻²
ENST00000588826	RAD23A	ENSG00000179262	RAD23 homolog A, nucleotide excision repair protein [Source:HGNC Symbol;Acc:HGNC:9812]	10.81	1.447x10 ⁻⁴	2.874x10 ⁻²
ENST00000587191	PTBP1	ENSG00000011304	polypyrimidine tract binding protein 1 [Source:HGNC Symbol;Acc:HGNC:9583]	10.81	1.408x10 ⁻⁴	2.860x10 ⁻²
ENST00000593021	FARSA	ENSG00000179115	phenylalanyl-tRNA synthetase alpha subunit [Source:HGNC Symbol;Acc:HGNC:3592]	10.80	1.465x10 ⁻⁴	2.874x10 ⁻²
ENST00000616482	ANKHD1	ENSG00000131503	ankyrin repeat and KH domain containing 1 [Source:HGNC Symbol;Acc:HGNC:24714]	10.80	1.475x10 ⁻⁴	2.874x10 ⁻²
ENST00000499676	TFDP2	ENSG00000114126	transcription factor Dp-2 [Source:HGNC Symbol;Acc:HGNC:11751]	10.80	1.477x10 ⁻⁴	2.874x10 ⁻²
ENST00000368210	PTPRK	ENSG00000152894	protein tyrosine phosphatase, receptor type K [Source:HGNC Symbol;Acc:HGNC:9674]	10.79	1.394x10 ⁻⁴	2.848x10 ⁻²
ENST00000378721	SEPT2	ENSG00000164402	septin 8 [Source:HGNC Symbol;Acc:HGNC:16511]	10.78	1.511x10 ⁻⁴	2.894x10 ⁻²
ENST00000462288	MRPL23	ENSG00000214026	mitochondrial ribosomal protein L23 [Source:HGNC Symbol;Acc:HGNC:10322]	10.76	1.556x10 ⁻⁴	2.916x10 ⁻²
ENST00000299927	ZNF592	ENSG00000166716	zinc finger protein 592 [Source:HGNC Symbol;Acc:HGNC:28986]	10.71	1.568x10 ⁻⁴	2.922x10 ⁻²
ENST00000494873	RNF11	ENSG00000123091	ring finger protein 11 [Source:HGNC Symbol;Acc:HGNC:10056]	10.69	1.741x10 ⁻⁴	3.048x10 ⁻²
ENST00000399688	PAICS	ENSG00000128050	phosphoribosylaminoimidazole carboxylase and phosphoribosylaminoimidazolesuccinocarboxamide	10.68	1.620x10 ⁻⁴	2.952x10 ⁻²
ENST00000412671	DGLUCY	ENSG00000133943	D-glutamate cyclase [Source:HGNC Symbol;Acc:HGNC:20498]	10.66	1.760x10 ⁻⁴	3.048x10 ⁻²
ENST00000421510	EHD1	ENSG00000110047	EH domain containing 1 [Source:HGNC Symbol;Acc:HGNC:3242]	10.66	1.761x10 ⁻⁴	3.048x10 ⁻²
ENST00000553753	HNRNPC	ENSG00000092199	heterogeneous nuclear ribonucleoprotein C (C1/C2) [Source:HGNC Symbol;Acc:HGNC:5035]	10.65	1.876x10 ⁻⁴	3.170x10 ⁻²
ENST00000423316	EEF1D	ENSG00000104529	eukaryotic translation elongation factor 1 delta [Source:HGNC Symbol;Acc:HGNC:3211]	10.64	1.738x10 ⁻⁴	3.048x10 ⁻²
ENST00000544838	TCHP	ENSG00000139437	trichoplein keratin filament binding [Source:HGNC Symbol;Acc:HGNC:28135]	10.63	1.913x10 ⁻⁴	3.170x10 ⁻²
ENST00000441323	DARS	ENSG00000115866	aspartyl-tRNA synthetase [Source:HGNC Symbol;Acc:HGNC:2678]	10.63	1.926x10 ⁻⁴	3.170x10 ⁻²
ENST00000587460	MUM1	ENSG00000160953	melanoma associated antigen (mutated) 1 [Source:HGNC Symbol;Acc:HGNC:29641]	10.62	1.854x10 ⁻⁴	3.170x10 ⁻²
ENST00000621130	ZFAND2B	ENSG00000158552	zinc finger AN1-type containing 2B [Source:HGNC Symbol;Acc:HGNC:25206]	10.62	1.955x10 ⁻⁴	3.188x10 ⁻²
ENST00000406259	ARVCF	ENSG00000099889	armadillo repeat gene deleted in velocardiocardial syndrome [Source:HGNC Symbol;Acc:HGNC:728]	10.61	1.982x10 ⁻⁴	3.201x10 ⁻²
ENST00000510411	HNRNPH1	ENSG00000169045	heterogeneous nuclear ribonucleoprotein H1 [Source:HGNC Symbol;Acc:HGNC:5041]	10.61	1.979x10 ⁻⁴	3.201x10 ⁻²
ENST00000438672	EFEMP1	ENSG00000115380	EGF containing fibulin like extracellular matrix protein 1 [Source:HGNC Symbol;Acc:HGNC:3218]	10.59	2.035x10 ⁻⁴	3.256x10 ⁻²
ENST00000456893	BUD31	ENSG00000106245	BUD31 homolog [Source:HGNC Symbol;Acc:HGNC:29629]	10.51	2.298x10 ⁻⁴	3.431x10 ⁻²
ENST00000532082	EIF4G2	ENSG00000110321	eukaryotic translation initiation factor 4 gamma 2 [Source:HGNC Symbol;Acc:HGNC:3297]	10.49	3.271x10 ⁻⁴	3.796x10 ⁻²
ENST00000567262	RBMX	ENSG00000147274	RNA binding motif protein, X-linked [Source:HGNC Symbol;Acc:HGNC:9910]	10.49	2.365x10 ⁻⁴	3.472x10 ⁻²
ENST00000568656	NUP93	ENSG00000102900	nucleoporin 93 [Source:HGNC Symbol;Acc:HGNC:28958]	10.48	2.422x10 ⁻⁴	3.510x10 ⁻²
ENST00000534825	CAPRIN1	ENSG00000135387	cell cycle associated protein 1 [Source:HGNC Symbol;Acc:HGNC:6743]	10.47	2.458x10 ⁻⁴	3.522x10 ⁻²
ENST00000540292	NAV2	ENSG00000166833	neuron navigator 2 [Source:HGNC Symbol;Acc:HGNC:15997]	10.44	2.621x10 ⁻⁴	3.641x10 ⁻²
ENST00000493237	MME	ENSG00000196549	membrane metalloendopeptidase [Source:HGNC Symbol;Acc:HGNC:7154]	10.43	2.630x10 ⁻⁴	3.641x10 ⁻²
ENST00000469609	CEP85	ENSG00000130695	centrosomal protein 85 [Source:HGNC Symbol;Acc:HGNC:25309]	10.43	2.609x10 ⁻⁴	3.641x10 ⁻²
ENST00000407859	MADD	ENSG00000110514	MAP kinase activating death domain [Source:HGNC Symbol;Acc:HGNC:6766]	10.42	2.717x10 ⁻⁴	3.658x10 ⁻²
ENST00000415690	NR3C1	ENSG00000113580	nuclear receptor subfamily 3 group C member 1 [Source:HGNC Symbol;Acc:HGNC:7978]	10.40	2.709x10 ⁻⁴	3.658x10 ⁻²
ENST00000544829	IPO8	ENSG00000133704	importin 8 [Source:HGNC Symbol;Acc:HGNC:9853]	10.38	2.886x10 ⁻⁴	3.693x10 ⁻²
ENST00000420461	API5	ENSG00000166181	apoptosis inhibitor 5 [Source:HGNC Symbol;Acc:HGNC:594]	10.37	2.922x10 ⁻⁴	3.717x10 ⁻²
ENST00000405015	EHBP1	ENSG00000115504	EH domain binding protein 1 [Source:HGNC Symbol;Acc:HGNC:29144]	10.35	2.707x10 ⁻⁴	3.658x10 ⁻²
ENST00000432378	DONSON	ENSG00000159147	downstream neighbor of SON [Source:HGNC Symbol;Acc:HGNC:2993]	10.34	3.072x10 ⁻⁴	3.753x10 ⁻²
ENST00000372220	POMT1	ENSG00000130714	protein O-mannosyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:9202]	10.34	2.956x10 ⁻⁴	3.726x10 ⁻²
ENST00000544085	AFF1	ENSG00000172493	AF4/FMR2 family member 1 [Source:HGNC Symbol;Acc:HGNC:7135]	10.33	3.154x10 ⁻⁴	3.753x10 ⁻²
ENST00000538565	IST1	ENSG00000182149	IST1, ESCRT-III associated factor [Source:HGNC Symbol;Acc:HGNC:28977]	10.33	3.140x10 ⁻⁴	3.753x10 ⁻²
ENST00000321326	TMEM214	ENSG00000119777	transmembrane protein 214 [Source:HGNC Symbol;Acc:HGNC:25983]	10.31	3.142x10 ⁻⁴	3.753x10 ⁻²
ENST00000323668	TCOF1	ENSG00000070814	treacle ribosome biogenesis factor 1 [Source:HGNC Symbol;Acc:HGNC:11654]	10.29	3.334x10 ⁻⁴	3.820x10 ⁻²
ENST00000514667	AC008695.1	ENSG00000273217		10.29	3.366x10 ⁻⁴	3.830x10 ⁻²
ENST00000446643	WDR43	ENSG00000163811	WD repeat domain 43 [Source:HGNC Symbol;Acc:HGNC:28945]	10.28	3.281x10 ⁻⁴	3.796x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000638156	ARHGAP21	ENSG00000107863	Rho GTPase activating protein 21 [Source:HGNC Symbol;Acc:HGNC:23725]	10.28	4.152x10 ⁻⁴	4.098x10 ⁻²
ENST00000396548	TRIM39	ENSG00000204599	tripartite motif containing 39 [Source:HGNC Symbol;Acc:HGNC:10065]	10.26	3.290x10 ⁻⁴	3.796x10 ⁻²
ENST00000636534	RAB34	ENSG00000109113	RAB34, member RAS oncogene family [Source:HGNC Symbol;Acc:HGNC:16519]	10.26	3.207x10 ⁻⁴	3.777x10 ⁻²
ENST00000481997	ARPC1B	ENSG00000130429	actin related protein 2/3 complex subunit 1B [Source:HGNC Symbol;Acc:HGNC:704]	10.24	3.605x10 ⁻⁴	3.961x10 ⁻²
ENST00000484043	IFRD2	ENSG00000214706	interferon related developmental regulator 2 [Source:HGNC Symbol;Acc:HGNC:5457]	10.23	3.664x10 ⁻⁴	3.961x10 ⁻²
ENST00000566349	KLHDC4	ENSG00000104731	kelch domain containing 4 [Source:HGNC Symbol;Acc:HGNC:25272]	10.23	3.705x10 ⁻⁴	3.961x10 ⁻²
ENST00000602682	ZMYND11	ENSG00000015171	zinc finger MYND-type containing 11 [Source:HGNC Symbol;Acc:HGNC:16966]	10.22	3.770x10 ⁻⁴	3.983x10 ⁻²
ENST00000533129	CAPN1	ENSG00000014216	calpain 1 [Source:HGNC Symbol;Acc:HGNC:1476]	10.22	5.791x10 ⁻⁴	4.704x10 ⁻²
ENST00000568706	NUBP2	ENSG00000095906	nucleotide binding protein 2 [Source:HGNC Symbol;Acc:HGNC:8042]	10.21	3.730x10 ⁻⁴	3.961x10 ⁻²
ENST00000429915	WDFY1	ENSG00000085449	WD repeat and FYVE domain containing 1 [Source:HGNC Symbol;Acc:HGNC:20451]	10.21	3.737x10 ⁻⁴	3.961x10 ⁻²
ENST00000427372	FAM133B	ENSG00000234545	family with sequence similarity 133 member B [Source:HGNC Symbol;Acc:HGNC:28629]	10.19	3.631x10 ⁻⁴	3.961x10 ⁻²
ENST00000536738	WSB2	ENSG00000176871	WD repeat and SOCS box containing 2 [Source:HGNC Symbol;Acc:HGNC:19222]	10.19	3.854x10 ⁻⁴	3.994x10 ⁻²
ENST00000303996	JMJD6	ENSG00000070495	arginine demethylase and lysine hydroxylase [Source:HGNC Symbol;Acc:HGNC:19355]	10.18	3.822x10 ⁻⁴	3.994x10 ⁻²
ENST00000598230	SH3GL1	ENSG00000141985	SH3 domain containing GRB2 like 1, endophilin A2 [Source:HGNC Symbol;Acc:HGNC:10830]	10.18	3.944x10 ⁻⁴	4.054x10 ⁻²
ENST00000421103	GUSB	ENSG00000169919	glucuronidase beta [Source:HGNC Symbol;Acc:HGNC:4696]	10.18	3.445x10 ⁻⁴	3.882x10 ⁻²
ENST00000483320	TEDC2	ENSG00000162062	Tubulin epsilon and delta complex 2 [Source:HGNC Symbol;Acc:HGNC:25849]	10.18	4.016x10 ⁻⁴	4.087x10 ⁻²
ENST00000560612	RPS17	ENSG00000182774	ribosomal protein S17 [Source:HGNC Symbol;Acc:HGNC:10397]	10.16	4.145x10 ⁻⁴	4.098x10 ⁻²
ENST00000533240	HSF1	ENSG00000185122	heat shock transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:5224]	10.16	4.079x10 ⁻⁴	4.098x10 ⁻²
ENST00000460346	EXOC4	ENSG00000131558	exocyst complex component 4 [Source:HGNC Symbol;Acc:HGNC:30389]	10.16	4.085x10 ⁻⁴	4.098x10 ⁻²
ENST00000293879	WDR90	ENSG00000161996	WD repeat domain 90 [Source:HGNC Symbol;Acc:HGNC:26960]	10.16	3.867x10 ⁻⁴	3.994x10 ⁻²
ENST00000437146	GNB1	ENSG00000078369	G protein subunit beta 1 [Source:HGNC Symbol;Acc:HGNC:4396]	10.15	4.025x10 ⁻⁴	4.087x10 ⁻²
ENST00000475584	IGF2R	ENSG00000197081	insulin like growth factor 2 receptor [Source:HGNC Symbol;Acc:HGNC:5467]	10.15	4.096x10 ⁻⁴	4.098x10 ⁻²
ENST00000514182	CSRNP1	ENSG00000144655	cysteine and serine rich nuclear protein 1 [Source:HGNC Symbol;Acc:HGNC:14300]	10.15	4.248x10 ⁻⁴	4.107x10 ⁻²
ENST00000372779	PPT1	ENSG00000131238	palmitoyl-protein thioesterase 1 [Source:HGNC Symbol;Acc:HGNC:9325]	10.14	4.168x10 ⁻⁴	4.098x10 ⁻²
ENST00000443275	POU2F1	ENSG00000143190	POU class 2 homeobox 1 [Source:HGNC Symbol;Acc:HGNC:9212]	10.14	4.339x10 ⁻⁴	4.145x10 ⁻²
ENST00000511337	PKD2	ENSG00000118762	polycystin 2, transient receptor potential cation channel [Source:HGNC Symbol;Acc:HGNC:9009]	10.14	4.004x10 ⁻⁴	4.087x10 ⁻²
ENST00000555022	SYNE2	ENSG00000054654	spectrin repeat containing nuclear envelope protein 2 [Source:HGNC Symbol;Acc:HGNC:17084]	10.14	4.296x10 ⁻⁴	4.116x10 ⁻²
ENST00000441549	PDPK1	ENSG00000140992	3-phosphoinositide dependent protein kinase 1 [Source:HGNC Symbol;Acc:HGNC:8816]	10.13	4.275x10 ⁻⁴	4.107x10 ⁻²
ENST00000557840	NUSAP1	ENSG00000137804	nucleolar and spindle associated protein 1 [Source:HGNC Symbol;Acc:HGNC:18538]	10.13	4.162x10 ⁻⁴	4.098x10 ⁻²
ENST00000567694	ATP6V0D1	ENSG00000159720	ATPase H+ transporting V0 subunit d1 [Source:HGNC Symbol;Acc:HGNC:13724]	10.13	4.218x10 ⁻⁴	4.107x10 ⁻²
ENST00000526125	SLC43A3	ENSG00000134802	solute carrier family 43 member 3 [Source:HGNC Symbol;Acc:HGNC:17466]	10.11	4.360x10 ⁻⁴	4.154x10 ⁻²
ENST00000595687	ZNF780A	ENSG00000197782	zinc finger protein 780A [Source:HGNC Symbol;Acc:HGNC:27603]	10.11	4.433x10 ⁻⁴	4.164x10 ⁻²
ENST00000527651	STIM1	ENSG00000167323	stromal interaction molecule 1 [Source:HGNC Symbol;Acc:HGNC:11386]	10.10	4.570x10 ⁻⁴	4.235x10 ⁻²
ENST00000435215	STAG2	ENSG00000101972	stromal antigen 2 [Source:HGNC Symbol;Acc:HGNC:11355]	10.10	4.424x10 ⁻⁴	4.164x10 ⁻²
ENST00000474528	SFXN5	ENSG00000144040	sideroflexin 5 [Source:HGNC Symbol;Acc:HGNC:16073]	10.09	4.662x10 ⁻⁴	4.252x10 ⁻²
ENST00000490141	CEP350	ENSG00000135837	centrosomal protein 350 [Source:HGNC Symbol;Acc:HGNC:24238]	10.08	4.720x10 ⁻⁴	4.252x10 ⁻²
ENST00000508705	GRK6	ENSG00000198055	G protein-coupled receptor kinase 6 [Source:HGNC Symbol;Acc:HGNC:4545]	10.08	4.726x10 ⁻⁴	4.252x10 ⁻²
ENST00000542128	KDM3A	ENSG00000115548	lysine demethylase 3A [Source:HGNC Symbol;Acc:HGNC:20815]	10.06	4.856x10 ⁻⁴	4.267x10 ⁻²
ENST00000514940	ADD1	ENSG00000087274	adducin 1 [Source:HGNC Symbol;Acc:HGNC:243]	10.05	4.740x10 ⁻⁴	4.252x10 ⁻²
ENST00000555626	PAPOLA	ENSG00000090060	poly(A) polymerase alpha [Source:HGNC Symbol;Acc:HGNC:14981]	10.04	4.929x10 ⁻⁴	4.309x10 ⁻²
ENST00000530326	NUP160	ENSG00000030066	nucleoporin 160 [Source:HGNC Symbol;Acc:HGNC:18017]	10.04	5.124x10 ⁻⁴	4.411x10 ⁻²
ENST00000445505	EEF1B2	ENSG00000114942	eukaryotic translation elongation factor 1 beta 2 [Source:HGNC Symbol;Acc:HGNC:3208]	10.03	4.768x10 ⁻⁴	4.252x10 ⁻²
ENST00000548823	CTDSP2	ENSG00000175215	CTD small phosphatase 2 [Source:HGNC Symbol;Acc:HGNC:17077]	10.02	4.990x10 ⁻⁴	4.351x10 ⁻²
ENST00000428287	RIF1	ENSG00000080345	replication timing regulatory factor 1 [Source:HGNC Symbol;Acc:HGNC:23207]	10.02	4.608x10 ⁻⁴	4.252x10 ⁻²
ENST00000475134	TBC1D23	ENSG00000036054	TBC1 domain family member 23 [Source:HGNC Symbol;Acc:HGNC:25622]	10.01	5.192x10 ⁻⁴	4.436x10 ⁻²
ENST00000479602	DDX56	ENSG00000136271	DEAD-box helicase 56 [Source:HGNC Symbol;Acc:HGNC:18193]	10.00	5.239x10 ⁻⁴	4.453x10 ⁻²

Ensembl transcript ID	HGNC Symbol	Ensembl gene ID	Description	Log2(Fold Change)	p-value	Adjusted p-value
ENST00000452476	LYAR	ENSG00000145220	Ly1 antibody reactive [Source:HGNC Symbol;Acc:HGNC:26021]	10.00	5.408x10 ⁻⁴	4.563x10 ⁻²
ENST00000407755	DGCR8	ENSG00000128191	DGCR8, microprocessor complex subunit [Source:HGNC Symbol;Acc:HGNC:2847]	9.994	1.372x10 ⁻⁴	2.848x10 ⁻²
ENST00000504092	CTBP1	ENSG00000159692	C-terminal binding protein 1 [Source:HGNC Symbol;Acc:HGNC:2494]	9.993	5.482x10 ⁻⁴	4.613x10 ⁻²
ENST00000549022	PFKM	ENSG00000152556	phosphofructokinase, muscle [Source:HGNC Symbol;Acc:HGNC:8877]	9.968	5.541x10 ⁻⁴	4.652x10 ⁻²
ENST00000354831	NRDC	ENSG00000078618	nardilysin convertase [Source:HGNC Symbol;Acc:HGNC:7995]	9.968	5.680x10 ⁻⁴	4.674x10 ⁻²
ENST00000625836	VOPP1	ENSG00000154978	vesicular, overexpressed in cancer, prosurvival protein 1 [Source:HGNC Symbol;Acc:HGNC:34518]	9.962	5.797x10 ⁻⁴	4.704x10 ⁻²
ENST00000561338	ALDH1A3	ENSG00000184254	aldehyde dehydrogenase 1 family member A3 [Source:HGNC Symbol;Acc:HGNC:409]	9.957	5.606x10 ⁻⁴	4.661x10 ⁻²
ENST00000453740	NELFA	ENSG00000185049	negative elongation factor complex member A [Source:HGNC Symbol;Acc:HGNC:12768]	9.946	5.716x10 ⁻⁴	4.682x10 ⁻²
ENST00000394073	STAMBP	ENSG00000124356	STAM binding protein [Source:HGNC Symbol;Acc:HGNC:16950]	9.927	6.193x10 ⁻⁴	4.795x10 ⁻²
ENST00000524222	TBC1D9B	ENSG00000197226	TBC1 domain family member 9B [Source:HGNC Symbol;Acc:HGNC:29097]	9.925	6.138x10 ⁻⁴	4.795x10 ⁻²
ENST00000359226	UQCC1	ENSG00000101019	ubiquinol-cytochrome c reductase complex assembly factor 1 [Source:HGNC Symbol;Acc:HGNC:1585]	9.923	5.111x10 ⁻⁴	4.411x10 ⁻²
ENST00000610300	NBPF9	ENSG00000269713	neuroblastoma breakpoint family member 9 [Source:HGNC Symbol;Acc:HGNC:31991]	9.920	5.692x10 ⁻⁴	4.674x10 ⁻²
ENST00000478588	AFF4	ENSG00000072364	AF4/FMR2 family member 4 [Source:HGNC Symbol;Acc:HGNC:17869]	9.911	6.109x10 ⁻⁴	4.795x10 ⁻²
ENST00000422190	ATP2C1	ENSG00000017260	ATPase secretory pathway Ca2+ transporting 1 [Source:HGNC Symbol;Acc:HGNC:13211]	9.905	6.133x10 ⁻⁴	4.795x10 ⁻²
ENST00000560190	TCF12	ENSG00000140262	transcription factor 12 [Source:HGNC Symbol;Acc:HGNC:11623]	9.905	6.380x10 ⁻⁴	4.917x10 ⁻²
ENST00000437518	EIF2D	ENSG00000143486	eukaryotic translation initiation factor 2D [Source:HGNC Symbol;Acc:HGNC:6583]	9.902	5.997x10 ⁻⁴	4.774x10 ⁻²
ENST00000520110	ELP3	ENSG00000134014	elongator acetyltransferase complex subunit 3 [Source:HGNC Symbol;Acc:HGNC:20696]	9.901	6.320x10 ⁻⁴	4.883x10 ⁻²
ENST00000359171	NUP98	ENSG00000110713	nucleoporin 98 [Source:HGNC Symbol;Acc:HGNC:8068]	9.892	6.109x10 ⁻⁴	4.795x10 ⁻²
ENST00000489216	SEPT6	ENSG00000125354	septin 6 [Source:HGNC Symbol;Acc:HGNC:15848]	9.883	6.542x10 ⁻⁴	4.997x10 ⁻²
ENST00000620890	GPX1	ENSG00000233276	glutathione peroxidase 1 [Source:HGNC Symbol;Acc:HGNC:4553]	9.877	6.181x10 ⁻⁴	4.795x10 ⁻²
ENST00000547540	OSBPL8	ENSG00000091039	oxysterol binding protein like 8 [Source:HGNC Symbol;Acc:HGNC:16396]	9.871	5.633x10 ⁻⁴	4.661x10 ⁻²
ENST00000557172	KLC1	ENSG00000126214	kinesin light chain 1 [Source:HGNC Symbol;Acc:HGNC:6387]	9.871	6.025x10 ⁻⁴	4.774x10 ⁻²
ENST00000433566	XPO7	ENSG00000130227	exportin 7 [Source:HGNC Symbol;Acc:HGNC:14108]	9.816	2.131x10 ⁻⁴	3.316x10 ⁻²
ENST00000401990	SEPT8	ENSG00000168385	septin 2 [Source:HGNC Symbol;Acc:HGNC:7729]	9.695	1.116x10 ⁻⁴	2.682x10 ⁻²
ENST00000271883	GON4L	ENSG00000116580	gon-4 like [Source:HGNC Symbol;Acc:HGNC:25973]	9.498	3.431x10 ⁻⁴	3.879x10 ⁻²
ENST00000519503	CHMP7	ENSG00000147457	charged multivesicular body protein 7 [Source:HGNC Symbol;Acc:HGNC:28439]	9.400	2.839x10 ⁻⁴	3.675x10 ⁻²
ENST00000478746	VIM	ENSG00000026025	vimentin [Source:HGNC Symbol;Acc:HGNC:12692]	9.197	2.930x10 ⁻⁴	3.717x10 ⁻²
ENST00000594769	AC008982.1	ENSG00000268083		9.185	2.739x10 ⁻⁴	3.658x10 ⁻²
ENST00000584364	RPL17	ENSG00000265681	ribosomal protein L17 [Source:HGNC Symbol;Acc:HGNC:10307]	9.145	6.479x10 ⁻⁵	2.224x10 ⁻²
ENST00000519544	GALNT10	ENSG00000164574	polypeptide N-acetylgalactosaminyltransferase 10 [Source:HGNC Symbol;Acc:HGNC:19873]	9.083	2.773x10 ⁻⁴	3.664x10 ⁻²
ENST00000552754	CD63	ENSG00000135404	CD63 molecule [Source:HGNC Symbol;Acc:HGNC:1692]	9.035	2.392x10 ⁻⁴	3.492x10 ⁻²
ENST00000344624	DROSHA	ENSG00000113360	drosha ribonuclease III [Source:HGNC Symbol;Acc:HGNC:17904]	8.891	4.395x10 ⁻⁴	4.164x10 ⁻²
ENST00000431914	CTNNB1	ENSG00000168036	catenin beta 1 [Source:HGNC Symbol;Acc:HGNC:2514]	8.809	4.008x10 ⁻⁴	4.087x10 ⁻²
ENST00000452216	SUMF2	ENSG00000129103	sulfatase modifying factor 2 [Source:HGNC Symbol;Acc:HGNC:20415]	8.555	4.052x10 ⁻⁴	4.098x10 ⁻²
ENST00000542324	CS	ENSG00000062485	citrate synthase [Source:HGNC Symbol;Acc:HGNC:2422]	8.510	4.921x10 ⁻⁴	4.309x10 ⁻²
ENST00000308736	DHX37	ENSG00000150990	DEAH-box helicase 37 [Source:HGNC Symbol;Acc:HGNC:17210]	8.239	2.763x10 ⁻⁴	3.664x10 ⁻²
ENST00000626301	DDX3X	ENSG00000215301	DEAD-box helicase 3, X-linked [Source:HGNC Symbol;Acc:HGNC:2745]	7.978	5.965x10 ⁻⁴	4.769x10 ⁻²
ENST00000629845	RPL35	ENSG00000136942	ribosomal protein L35 [Source:HGNC Symbol;Acc:HGNC:10344]	7.550	2.310x10 ⁻⁴	3.431x10 ⁻²
ENST00000588454	CALR	ENSG00000179218	calreticulin [Source:HGNC Symbol;Acc:HGNC:1455]	7.045	3.572x10 ⁻⁴	3.946x10 ⁻²

Appendix B. Table B.4 Data S6. List of top 10 most enriched pathways in upregulated transcripts

Pathway	Adjusted P-value	Combined Score	Genes
Alzheimers Disease_Mus musculus_WP2075	5.666x10 ⁻²	11.20	CASP7;ITPR1;ATP2A2;ATP2A1
Focal Adhesion_Mus Musculus_Wp85	6.049x10 ⁻²	11.50	COL1A1;SRC;ITGA10;FN1;FLNA;CRKL
Signaling Of Hepatocyte Growth Factor Receptor_Mus Musculus_Wp193	5.666x10 ⁻²	12.49	SRC;FOS;CRKL
Signaling Of Hepatocyte Growth Factor Receptor_Homo Sapiens_Wp313	5.666x10 ⁻²	12.81	SRC;FOS;CRKL
Oncostatin M Signaling Pathway_Homo Sapiens_Wp2374	5.666x10 ⁻²	12.85	CASP7;SRC;FOS;HIF1A
Nanoparticle-Mediated Activation Of Receptor Signaling_Homo Sapiens_Wp2643	5.666x10 ⁻²	13.10	COL1A1;SRC;FN1
Focal Adhesion_Homo Sapiens_Hsa04510	6.057x10 ⁻²	13.58	COL1A1;SRC;ITGA10;FN1;COL4A5;FLNA;CRKL
Bacterial Invasion Of Epithelial Cells_Homo Sapiens_Hsa05100	4.622x10 ⁻²	14.65	SEPT9;SRC;FN1;CTNNA1;CRKL
Angiogenesis_Homo Sapiens_Wp1539	5.666x10 ⁻²	14.79	SRC;ARNT;HIF1A
Integrin Signalling Pathway_Homo Sapiens_P00034	6.383x10 ⁻³	15.53	COL1A1;SRC;ITGA10;FN1;FLNA;COL4A5;CRKL

Appendix B Table B.5. Top 10 most enriched GO terms in upregulated genes

Pathway	Adjusted P-value	Combined Score	Genes
21U-Rna Binding (Go:0034583)	0.09800	16.95	DDX17;TRMT10A;RBM14;RPL10;YTHDC1;RDX;ALG13;CRKL;GNL3;ATXN2L;MOV10;CTNNA1;SRPRA;FLNA;UBAP2L;RPS2;LBR
Rough Endoplasmic Reticulum Lumen (Go:0048237)	0.07077	18.83	COL1A1;TGOLN2;DNAJC3;FN1;COL4A5;NUCB1;GAS6;PDIA5
Cortical Endoplasmic Reticulum Lumen (Go:0099021)	0.06268	19.74	COL1A1;TGOLN2;DNAJC3;FN1;COL4A5;NUCB1;GAS6;PDIA5
Smooth Endoplasmic Reticulum Lumen (Go:0048238)	0.06268	20.13	COL1A1;TGOLN2;DNAJC3;FN1;COL4A5;NUCB1;GAS6;PDIA5
Endoplasmic Reticulum Lumen (Go:0005788)	0.06268	20.25	COL1A1;TGOLN2;DNAJC3;FN1;COL4A5;NUCB1;GAS6;PDIA5
Perinuclear Endoplasmic Reticulum Lumen (Go:0099020)	0.03424	24.67	COL1A1;TGOLN2;DNAJC3;OSBPL3;FN1;COL4A5;NUCB1;GAS6;PDIA5
Sarcoplasmic Reticulum Lumen (Go:0033018)	0.01961	29.27	COL1A1;TGOLN2;DNAJC3;FN1;COL4A5;NUCB1;ATP2A2;ATP2A1;GAS6;PDIA5
Bicellular Tight Junction Assembly (Go:0070830)	0.06624	31.3	TBCD;CTNNA1;PKP4;F11R;ECT2
Cadherin Binding Involved In Cell-Cell Adhesion (Go:0098641)	0.004333	32.48	ATXN2L;SEPT9;CCS;SRC;RDX;CTNNA1;FLNA;RPS2;F11R;SNX5;CRKL
Cadherin Binding (Go:0045296)	0.004333	33.56	ATXN2L;SEPT9;CCS;SRC;RDX;CTNNA1;FLNA;RPS2;F11R;SNX5;CRKL

Appendix B Table B.6 Top 10 most enriched pathways in downregulated genes

Pathway	Adjusted P-value	Combined Score	Genes
Oxidative Stress_Mus Musculus_Wp412	0.2785	8.463	SOD2;GABPB1
Hepatitis B_Homo Sapiens_Hsa05161	0.2494	8.712	CASP10;AKT2;NFATC3;YWHAZ
Gastric Cancer Network 2_Homo Sapiens_Wp2363	0.2785	8.735	RAD17;CACYPB
B Cell Receptor Signaling Pathway_Homo Sapiens_Hsa04662	0.2494	9.251	SYK;AKT2;NFATC3
Central Carbon Metabolism In Cancer_Homo Sapiens_Hsa05230	0.2494	9.315	GLS2;AKT2;HIF1A
Adipogenesis_Homo Sapiens_Wp236	0.2566	9.469	MEF2A;MBNL1;LMNA;HIF1A
Adipogenesis Genes_Mus Musculus_Wp447	0.2566	9.717	MEF2A;MBNL1;LMNA;HIF1A
Longevity Regulating Pathway - Multiple Species_Homo Sapiens_Hsa04213	0.2494	10.38	AKT2;SOD2;ATG5
Apoptosis_Homo Sapiens_Hsa04210	0.1531	13.43	BCL2L11;CASP10;AKT2;LMNA;CAPN2
Trans-Sulfuration Pathway_Homo Sapiens_Wp2333	0.2123	14.39	MPST;DNMT1

Appendix B Table B.7 Top 10 most enriched GO terms in downregulated genes

Pathway	Adjusted P Combined Genes	
Interfibrillar Mitochondrion (Go:1990844)	0.1042	22.74 BNIP3L;DHX30;SLC25A3;BCL2L11;TRIM39;GLS2;TNRC18;LETMD1;SOD2;EARS2;ATPAF1;IDH3A
Negative Regulation Of Germ Cell Proliferation (Go:1905937)	0.2709	23.88 CUL4A;RARG;LMNA;PTPRK;SOD2;PTHLH
Negative Regulation Of Cell Proliferation Involved In Heart Morphogenesis (Go:2000137)	0.2709	23.9 CUL4A;RARG;LMNA;PTPRK;SOD2;PTHLH
Negative Regulation Of Cell Proliferation Involved In Compound Eye Morphogenesis (Go:2000496)	0.2709	23.91 CUL4A;RARG;LMNA;PTPRK;SOD2;PTHLH
Negative Regulation Of Cell Proliferation In Bone Marrow (Go:1903769)	0.2709	23.92 CUL4A;RARG;LMNA;PTPRK;SOD2;PTHLH
Negative Regulation Of Cell Proliferation Involved In Kidney Development (Go:1901723)	0.2709	23.95 CUL4A;RARG;LMNA;PTPRK;SOD2;PTHLH
Negative Regulation Of Canonical Wnt Signaling Pathway Involved In Controlling Type B Pancreatic Cell Proliferation (Go:2000080)	0.2778	25.19 CUL4A;RARG;PSMD2;LMNA;PTPRK;SOD2;PTHLH
Protein Ubiquitination Involved In Ubiquitin-Dependent Protein Catabolic Process (Go:0042787)	0.2709	25.36 CUL4A;RMND5B;ATXN3;BTBD3;KLHL13;DCAF11;HIF1A
Positive Regulation Of Transcription From Rna Polymerase Ii Promoter (Go:0045944)	0.2778	25.68 MEF2A;BCAS3;RARG;ZEB1;SLTM;NFATC3;INO80;UBE2V1;SOD2;GABPB1;ATXN7L3;HIF1A
Negative Regulation Of Growth Plate Cartilage Chondrocyte Proliferation (Go:0061914)	0.2709	31.28 CUL4A;RARG;LMNA;WWC2;PTPRK;SOD2;PTHLH

Appendix B Table B.8 Top 10 most enriched pathways in significantly oxidized genes upon exposure

Pathway	Adjusted P-value	Combined Score	Genes
Cytoplasmic Ribosomal Proteins_Homo sapiens_WP477	0.0013	24.18	RPS17;RPL22;RPS6KA1;RPL13;RPL35;RPS3A;RPL17;RPL6
mRNA processing_Mus musculus_WP310	0.0027	21.39	DDX3X;RPL22;DDX56;HNRNPAB;PTBP1;BCLAF1;ILF3;HNRNPH1;PAPOLA;EIF2D;HNRNPC;SREK1;PABPC1;RBMX;EIF4G2
Endocytosis_Homo sapiens_hsa04144	0.0061	20.41	EHD1;RAB5C;IST1;ARPC1B;GRK6;HLA-C;AP2B1;STAMBP;CHMP7;IGF2R;AP2M1;SH3GL1
mRNA Processing_Homo sapiens_WP411	0.0045	17.81	PTBP1;HNRNPH1;PAPOLA;HNRNPC;SREK1;HNRNPAB;RBMX;SNRPA
Ribosome_Homo sapiens_hsa03010	0.0136	15.33	RPS17;RPL22;RPL13;RPL35;RPS3A;MRPL23;RPL17;RPL6
Bacterial invasion of epithelial cells_Homo sapiens_hsa05100	0.0144	14.62	SEPT8;SEPT6;ARPC1B;CTNNB1;SEPT2;ACTB
Apoptosis_Homo sapiens_hsa04210	0.0452	13.21	DAXX;MAP2K2;PDPK1;LMNA;CYCS;CAPN1;ACTB
FAS pathway and Stress induction of HSP regulation_Homo sapiens_WP314	0.0442	12.82	DAXX;LMNA;CYCS;ACTB
EGF/EGFR Signaling Pathway_Homo sapiens_WP437	0.0545	11.50	MAP2K2;PDPK1;CFL1;RPS6KA1;STAMBP;AP2B1;AP2M1
Translation Factors_Mus musculus_WP307	0.0494	11.28	EEF1B2;EEF1D;PABPC1;EIF4G2

Appendix B Table B.9 Top 10 most enriched GO terms in significantly oxidized genes upon exposure

Pathway	Adjusted P-value	Combined Genes
		DDX3X;RPL6;WDR43;PTBP1;RPS17;NUSAP1;DGCR8;RPL35;DDX17;MRPS27;DDX56;RPL22;RPS3A;JMJD6;FAM133B;ILF3;EEF1D;HNRNPH1;NUP98;PABPC1;SREK1;LUC7L2;SNRPA;MACF1;GRN;NOLC1;MTIF2;ADD1;BCLAF1;GANAB;TCOF1;DHX37;DROSHA;RPL13;LYAR;RPL17;DARS;API
RNA binding (GO:0003723)	6.889x10 ⁻¹³	46.29 5;PRRC2C;MRPL23;HNRNPAB;ANKHD1;CS;RSL1D1;MYBBP1A;CAPRIN1;CALR;HNRNPC;VIM;FARSA;RBMX;EIF4G2
cadherin binding (GO:0045296)	2.979x10 ⁻⁷	40.89 MACF1;DDX3X;IST1;CAPG;BZW2;PAICS;ADD1;RPL6;SEPT2;EHD1;LIMA1;RSL1D1;TBC1D2;CALD1;EEF1D;BSG;CTNNB1;EIF4G2;SH3GL1
viral process (GO:0016032)	5.800x10 ⁻⁷	36.79 CTBP1;IST1;RPL22;RPS3A;AP2B1;NUP160;RPL6;NUP93;PTBP1;RPS17;RPL13;RPL35;EIF2D;NUP98;CHMP7;RPL17;AP2M1
ncRNA processing (GO:0034470)	1.068x10 ⁻⁵	33.09 INTS11;DDX56;RPL22;NOLC1;RPS3A;RPL6;WDR43;RPS17;DHX37;DGCR8;DROSHA;RPL13;RPL35;LYAR;RPL17
cellular macromolecule biosynthetic process (GO:0034645)	1.068x10 ⁻⁵	30.76 DARS;RPL22;DONSON;TARS;RPS3A;MRPL23;NR3C1;RPL6;EEF1B2;RSL1D1;RPS17;TNIP1;EEF1D;RPL13;RPL35;NUP98;POLE;RPL17;EIF4G2
regulation of translation (GO:0006417)	1.068x10 ⁻⁵	28.63 APP;DDX3X;NOLC1;MTIF2;NUP160;NUP93;ILF3;IPO8;TCOF1;CAPRIN1;RPS6KA1;CALR;NUP98;VIM;EIF4G2
peptide biosynthetic process (GO:0043043)	8.310x10 ⁻⁵	27.62 DARS;RSL1D1;RPS17;TNIP1;RPL22;RPL13;RPL35;TARS;RPS3A;MRPL23;RPL17;RPL6
RNA metabolic process (GO:0016070)	2.022x10 ⁻⁴	26.78 DDX17;DDX3Y;PTBP1;DDX3X;HNRNPH1;DDX56;DHX37;PAPOLA;DROSHA;HNRNPC;POLE;RBMX
RNA polymerase I core binding (GO:0001042)	4.709x10 ⁻²	26.28 TCOF1;NOLC1
viral transcription (GO:0019083)	8.310x10 ⁻⁵	25.83 NUP93;RPS17;RPL22;RPL13;RPL35;RPS3A;NUP98;RPL17;NUP160;RPL6