

## Supplementary Tables for

### **Stoichiogenomics study of differentially expressed proteins and pathways in head and neck cancer**

**This PDF file includes**

Tables. S1 to S6.

## Tables

**Tables S1: Evaluation of protein expression scores.**

<b>Staining intensity</b>	<b>Staining cells</b>	<b>Degree</b>	<b>Expression score</b>
Negative	—	Not detected	0
Weak	<25%	Low	$3*0.625=1.875$
	25-75% or >75%		
Moderate	<25%	Medium	$6*0.625=3.75$
	25-75% or >75%		
Strong	<25%	High	$12*0.625=7.5$
	25-75% or >75%		

**Table S2. Oxygen content and carbon content of all proteins expressed in in head and neck cancer and normal oral mucosa-squamous epithelial cells**

	Number of genes	Mean [O]	Mean [C]	Comparsion of [O]		Comparsion of [C]		Comparsion of [C]: [O]	
				Kolmogorov-Smirnov test	Wilcoxon test	Kolmogorov-Smirnov test	Wilcoxon test	Kolmogorov-Smirnov test	Wilcoxon test
head and neck cancer	9973	0.480	2.924						
oral mucosa-squamous epithelial cells	7723	0.483	2.918	2.41E-02	1.97E-03	0.196	0.043	9.46E-03	3.96E-04

**Table S3. Oxygen and carbon content of highly and lowly expressed proteins in in head and neck cancer and normal oral mucosa-squamous epithelial cells.**

Scale	Sample	Number of proteins	Number of highly expressed proteins	Number of lowly expressed proteins	Mean [O] of highly expressed proteins	Mean [O] of lowly expressed proteins	Comparison of [O] (P value) (Kolmogorov-Smirnov test)	Comparison of [O] of [O] (P value) (Wilcoxon test)	Mean [C] of highly expressed proteins	Mean [C] of lowly expressed proteins	Comparison of [C] (P value) (Kolmogorov-Smirnov test)	Comparison of [C] (P value) (Wilcoxon test)	Mean [C]:[O] of highly expressed proteins	Mean [C]:[O] of lowly expressed proteins	Comparison of [C]:[O] (P value) (Kolmogorov-Smirnov test)	Comparison of [C]:[O] (P value) (Wilcoxon test)
3%	head and neck cancer	12928	388	388	0.506	0.450	2.20E-16	2.20E-16	2.871	2.918	9.96E-05	4.07E-04	5.874	6.738	2.20E-16	2.20E-16
	oral mucosa -squamous epithelial cells	11225	337	337	0.503	0.460	3.52E-10	1.12E-13	2.891	2.887	3.44E-02	0.648	0.587	0.647	3.52E-10	5.78E-13
5%	head and neck cancer	12928	646	646	0.499	0.451	2.20E-16	2.20E-16	2.892	2.917	5.23E-04	0.019	5.971	6.691	2.20E-16	2.20E-16
	oral mucosa -squamous epithelial cells	11225	561	561	0.499	0.462	1.65E-13	7.55E-16	2.885	2.902	1.69E-03	0.067	0.594	0.648	6.50E-14	2.20E-16
Threshold	head and neck cancer	12928	391	3044	0.505	0.464	2.20E-16	2.20E-16	2.871	2.927	2.95E-07	4.65E-09	0.588	0.651	2.20E-16	2.20E-16
	oral mucosa -squamous	11225	1126	4384	0.496	0.471	2.20E-16	2.20E-16	2.886	2.929	1.03E-10	4.41E-13	0.599	0.640	2.20E-16	2.20E-16

epithelial  
cells

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**Table S4. Carbon and oxygen content of differentially expressed proteins.**

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<b>Differential expressed protein</b>			
	<b>Number</b>	<b>Mean [C]</b>	<b>Mean [O]</b>
<b>up regulated proteins</b>	544	2.940	0.484
<b>down regulated proteins</b>	358	2.933	0.472
<b>P value (Wilcoxon test)</b>	-	7.38E-01	5.81E-03
<b>P value (Kolmogorov-Smirnov test)</b>	-	8.59E-01	1.27E-04

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**Table S5. Differential expressed proteins identified between in head and neck cancer and normal oral mucosa-squamous epithelial cells.**

Gene ID	Ensemble ID	KO	Gene name	Chromo so-me	start	end	logFC	logCPM	P-value	FDR	[O]	[C]	Type
345079	ENSG00000186212	-	SOWAHB	chr4	76894929	76897849	6.901	8.069	4.52E-06	8.10E-04	0.508	3.008	Up
51118	ENSG00000183520	K14769	UTP11	chr1	38012712	38024825	6.901	8.069	4.52E-06	8.10E-04	0.556	2.985	Up
154043	ENSG00000153721	-	CNKSR3	chr6	154405299	154510619	6.901	8.069	4.51E-06	8.10E-04	0.472	2.898	Up
2626	ENSG00000136574	K09183	GATA4	chr8	11676919	11760002	6.901	8.069	4.51E-06	8.10E-04	0.453	3.185	Up
51200	ENSG00000128510	K08637	CPA4	chr7	130293134	130324180	6.901	8.069	4.51E-06	8.10E-04	0.493	2.959	Up
6049	ENSG00000127870	-	RNF6	chr13	26132115	26222559	6.901	8.069	4.51E-06	8.10E-04	0.423	2.921	Up
623	ENSG00000100739	K03915	BDKRB1	chr14	96256210	96264763	6.901	8.069	4.51E-06	8.10E-04	0.379	2.868	Up
4986	ENSG00000082556	K04214	OPRK1	chr8	53225716	53251697	6.901	8.069	4.50E-06	8.10E-04	0.362	3.243	Up
54894	ENSG00000108375	K15694	RNF43	chr17	58352500	58418895	6.681	7.850	3.75E-06	8.10E-04	0.343	2.897	Up
10786	ENSG00000124564	K12300	SLC17A3	chr6	25845100	25874243	6.681	7.850	3.75E-06	8.10E-04	0.437	2.767	Up

10128	ENSG00000138095	K17964	LRPPRC	chr2	43886224	43996005	6.681	7.850	3.74E-06	8.10E-04	0.466	3.009	Up
26289	ENSG00000154027	K00939	AK5	chr1	77281908	77559969	6.681	7.850	3.73E-06	8.10E-04	0.498	2.917	Up
10615	ENSG00000076382	-	SPAG5	chr2	173075435	173268009	6.184	7.355	4.91E-06	8.10E-04	0.503	2.848	Up
55763	ENSG00000090989	K19983	EXOC1	chr4	55853616	55905078	6.184	7.355	4.91E-06	8.10E-04	0.545	3.009	Up
51776	ENSG00000091436	K04424	ZAK	chr17	28577565	28599038	6.184	7.355	4.91E-06	8.10E-04	0.604	2.848	Up
9342	ENSG00000099940	K08509	SNAP29	chr10	98415068	98446963	6.184	7.355	4.91E-06	8.10E-04	0.512	2.847	Up
3257	ENSG00000107521	K20193	HPS1	chr11	72106254	72112793	6.184	7.355	4.91E-06	8.10E-04	0.490	2.836	Up
25906	ENSG00000110200	-	ANAPC15	chr22	20859004	20891214	6.184	7.355	4.91E-06	8.10E-04	0.548	2.795	Up
2185	ENSG00000115257	K08671	PTK2B	chr8	27311482	27459391	6.184	7.355	4.91E-06	8.10E-04	0.548	2.988	Up
54760	ENSG00000117682	K11778	PCSK4	chr1	26432282	26471306	6.184	7.355	4.91E-06	8.10E-04	0.475	3.177	Up
79947	ENSG00000120899	K05871	DHDDS	chr19	1481428	1490874	6.184	7.355	4.90E-06	8.10E-04	0.366	3.163	Up
5791	ENSG00000132334	K18033	PTPRE	chr10	127907061	128085855	6.184	7.355	4.90E-06	8.10E-04	0.590	2.986	Up
10211	ENSG00000137312	K07192	FLOT1	chr1	91949371	92014428	6.184	7.355	4.90E-06	8.10E-04	0.392	3.129	Up
676	ENSG00000137948	K11724	BRDT	chr6	30727709	30742851	6.184	7.355	4.90E-06	8.10E-04	0.540	2.938	Up
81542	ENSG00000139921	-	TMX1	chr17	59619689	59696956	6.184	7.355	4.90E-06	8.10E-04	0.504	3.082	Up

1213	ENSG00000141367	K04646	CLTC	chr14	51240168	51257655	6.184	7.355	4.90E-06	8.10E-04	0.405	3.092	Up
2589	ENSG00000141429	K00710	GALNT1	chr18	35581066	35711834	6.184	7.355	4.90E-06	8.10E-04	0.494	3.112	Up
6769	ENSG00000144681	-	STAC	chr1	150282533	150287093	6.184	7.355	4.90E-06	8.10E-04	0.468	3.049	Up
9246	ENSG00000156587	K04553	UBE2L6	chr11	57551655	57568330	6.184	7.355	4.90E-06	8.10E-04	0.538	3.235	Up
148523	ENSG00000159208	K21599	CIART	chr3	36380455	36548007	6.184	7.355	4.90E-06	8.10E-04	0.492	2.853	Up
9442	ENSG00000160563	K15170	MED27	chr9	131860110	132079887	6.184	7.355	4.90E-06	8.10E-04	0.545	3.063	Up
63928	ENSG00000166869	K17611	CHP2	chrX	53936680	54048935	6.184	7.355	4.90E-06	8.10E-04	0.585	2.901	Up
23133	ENSG00000172943	K19415	PHF8	chr16	23754627	23758951	6.184	7.355	4.90E-06	8.10E-04	0.537	3.031	Up
29925	ENSG00000173540	K00966	GMPPB	chrX	155061622	155071272	6.184	7.355	4.90E-06	8.10E-04	0.562	3.036	Up
10027214 7	ENSG00000182712	-	CMC4	chrX	153700492	153724746	6.184	7.355	4.90E-06	8.10E-04	0.494	3.074	Up
10134	ENSG00000185825	K14009	BCAP31	chr3	49721476	49723974	6.184	7.355	4.90E-06	8.10E-04	0.526	3.021	Up
341947	ENSG00000187581	K02273	COX8C	chr14	93347191	93348354	6.142	7.313	1.36E-05	8.10E-04	0.572	3.318	Up
54187	ENSG00000095380	K05304	NANS	chr9	98056677	98083083	6.142	7.313	1.37E-05	8.10E-04	0.506	2.649	Up
23589	ENSG00000153048	-	CARHSP1	chr16	8852942	8869012	6.132	7.303	6.15E-04	7.86E-03	0.485	2.698	Up



5137	ENSG00000154678	K13755	PDE1C	chr7	31616777	32428224	6.132	7.303	6.16E-04	7.86E-03	0.468	2.997	Up
202151	ENSG00000164188	-	RANBP3L	chr5	36246919	36301936	6.132	7.303	6.16E-04	7.86E-03	0.547	2.662	Up
4007	ENSG00000012211	-	PRICKLE3	chrX	49174802	49186400	6.081	7.252	1.44E-05	8.10E-04	0.562	2.746	Up
9961	ENSG00000013364	K17266	MVP	chr7	100400826	100429239	6.081	7.252	1.44E-05	8.10E-04	0.429	3.069	Up
55063	ENSG00000078487	-	ZCWPW1	chr9	93184156	93327581	6.081	7.252	1.44E-05	8.10E-04	0.431	3.069	Up
28316	ENSG00000101542	K06807	CDH20	chr9	78236062	78278431	6.081	7.252	1.44E-05	8.10E-04	0.597	2.822	Up
84131	ENSG00000148019	K16765	CEP78	chr16	70379435	70439088	6.081	7.252	1.44E-05	8.10E-04	0.389	3.096	Up
6483	ENSG00000157350	K03368	ST3GAL2	chr18	61333582	61555773	6.081	7.252	1.44E-05	8.10E-04	0.373	2.738	Up
65268	ENSG00000165238	K08867	WNK2	chr16	29820394	29848039	6.081	7.252	1.44E-05	8.10E-04	0.525	3.145	Up
54477	ENSG00000052126	-	PLEKHA5	chr12	19129680	19376400	6.014	7.185	1.17E-05	8.10E-04	0.528	2.830	Up
57560	ENSG00000068885	K19678	IFT80	chr3	160256986	160399532	6.014	7.185	1.17E-05	8.10E-04	0.588	3.099	Up
23411	ENSG00000096717	K11411	SIRT1	chr10	67884669	67918390	6.014	7.185	1.17E-05	8.10E-04	0.510	2.961	Up
8985	ENSG00000106397	K13646	PLOD3	chr7	101205977	101217730	6.014	7.185	1.17E-05	8.10E-04	0.323	3.354	Up
10536	ENSG00000110811	-	P3H3	chr12	6828373	6839854	6.014	7.185	1.17E-05	8.10E-04	0.488	2.980	Up
79684	ENSG00000120458	-	MSANTD2	chr11	124766492	124800879	6.014	7.185	1.17E-05	8.10E-04	0.574	2.899	Up

79586	ENSG00000123989	K00747	CHPF	chr2	219538947	219543765	6.014	7.185	1.17E-05	8.10E-04	0.398	3.249	Up
9475	ENSG00000134318	K17388	ROCK2	chr2	11179759	11345407	6.014	7.185	1.17E-05	8.10E-04	0.433	2.852	Up
83851	ENSG00000139973	K19328	SYT16	chr14	61812156	62112825	6.014	7.185	1.17E-05	8.10E-04	0.432	2.996	Up
84451	ENSG00000143674	K17534	KIAA1804	chr1	233327732	233385148	6.014	7.185	1.17E-05	8.10E-04	0.563	2.646	Up
58527	ENSG00000146386	-	ABRACL	chr6	139028682	139043302	6.014	7.185	1.17E-05	8.10E-04	0.409	3.366	Up
23412	ENSG00000148444	-	COMMD3	chr10	22316383	22320317	6.014	7.185	1.17E-05	8.10E-04	0.553	2.908	Up
79888	ENSG00000153395	K13510	LPCAT1	chr5	1461427	1523961	6.014	7.185	1.17E-05	8.10E-04	0.555	3.018	Up
29104	ENSG00000156239	K19589	N6AMT1	chr21	28571095	28885373	6.014	7.185	1.17E-05	8.10E-04	0.492	2.736	Up
9131	ENSG00000156709	K04727	AIFM1	chrX	130129362	130165887	6.014	7.185	1.17E-05	8.10E-04	0.473	2.695	Up
54716	ENSG00000163817	K05048	SLC6A20	chr3	45755449	45796553	6.014	7.185	1.17E-05	8.10E-04	0.529	3.150	Up
1365	ENSG00000165215	K06087	CLDN3	chr7	73768997	73770270	6.014	7.185	1.17E-05	8.10E-04	0.417	2.731	Up
84889	ENSG00000165349	K13865	SLC7A3	chrX	70925579	70931125	6.014	7.185	1.18E-05	8.10E-04	0.504	2.988	Up
408263	ENSG00000172568	-	FNDC9	chr5	157341599	157345721	6.014	7.185	1.18E-05	8.10E-04	0.414	2.988	Up
170062	ENSG00000189132	-	FAM47B	chrX	34942796	34944917	5.901	7.073	1.49E-05	8.10E-04	0.464	2.909	Up

10013309 3	ENSG00000189090	-	FAM25G	chr10	47487236	47491700	5.901	7.073	1.49E-05	8.10E-04	0.420	3.007	Up
113763	ENSG00000188707	-	ZBED6CL	chr7	150329849	150332721	5.901	7.073	1.48E-05	8.10E-04	0.489	2.916	Up
643161	ENSG00000188100	-	FAM25A	chr10	87020289	87024730	5.901	7.073	1.48E-05	8.10E-04	0.554	2.994	Up
7327	ENSG00000184787	K04555	UBE2G2	chr21	44768580	44801836	5.901	7.073	1.48E-05	8.10E-04	0.492	3.236	Up
349334	ENSG00000184659	K09397	FOXD4L4	chr9	65737146	65738396	5.901	7.073	1.48E-05	8.10E-04	0.416	3.159	Up
8303	ENSG00000184602	-	SNN	chr16	11668433	11679159	5.901	7.073	1.48E-05	8.10E-04	0.385	3.045	Up
401145	ENSG00000184305	-	CCSER1	chr4	90127394	91602219	5.901	7.073	1.48E-05	8.10E-04	0.375	3.214	Up
51363	ENSG00000182022	K08106	CHST15	chr10	124006060	124093684	5.901	7.073	1.48E-05	8.10E-04	0.498	3.085	Up
340359	ENSG00000175946	K13959	KLHL38	chr8	123644442	123653829	5.901	7.073	1.48E-05	8.10E-04	0.570	2.910	Up
144245	ENSG00000175548	K03850	ALG10B	chr12	38316679	38329726	5.901	7.073	1.48E-05	8.10E-04	0.538	2.932	Up
11065	ENSG00000175063	K06688	UBE2C	chr20	45812576	45816957	5.901	7.073	1.48E-05	8.10E-04	0.454	2.959	Up
220136	ENSG00000172361	-	CFAP53	chr18	50227193	50266522	5.901	7.073	1.47E-05	8.10E-04	0.363	2.998	Up
3790	ENSG00000170745	K04933	KCNS3	chr2	17877847	17932961	5.901	7.073	1.47E-05	8.10E-04	0.433	2.762	Up
4862	ENSG00000170485	K09026	NPAS2	chr2	100820151	100996829	5.901	7.073	1.47E-05	8.10E-04	0.482	3.165	Up
9119	ENSG00000170454	K07605	KRT75	-	-	-	5.901	7.073	1.47E-05	8.10E-04	0.534	2.996	Up

2298	ENSG00000170122	K09397	FOXD4	chr9	116231	118417	5.901	7.073	1.47E-05	8.10E-04	0.418	3.253	Up
4632	ENSG00000168530	K05738	MYL1	chr2	210290144	210315171	5.901	7.073	1.47E-05	8.10E-04	0.486	3.083	Up
124936	ENSG00000167740	-	CYB5D2	chr17	4143117	4157701	5.901	7.073	1.47E-05	8.10E-04	0.497	2.897	Up
144100	ENSG00000166689	-	PLEKHA7	chr11	16787153	17014423	5.901	7.073	1.47E-05	8.10E-04	0.427	2.779	Up
55172	ENSG00000165506	K19751	DNAAF2	chr14	49625174	49635230	5.901	7.073	1.47E-05	8.10E-04	0.461	3.022	Up
203259	ENSG00000164970	-	FAM219A	chr9	34398184	34458610	5.901	7.073	1.47E-05	8.10E-04	0.497	3.103	Up
26173	ENSG00000164880	K13138	INTS1	chr7	1470277	1504382	5.901	7.073	1.47E-05	8.10E-04	0.430	3.017	Up
166929	ENSG00000164023	K04714	SGMS2	chr4	107823645	107915047	5.901	7.073	1.47E-05	8.10E-04	0.520	3.017	Up
7398	ENSG00000162607	K11832	USP1	chr1	62436304	62451804	5.901	7.073	1.47E-05	8.10E-04	0.282	2.957	Up
27151	ENSG00000160111	-	CPAMD8	chr19	16892951	17026818	5.901	7.073	1.47E-05	8.10E-04	0.470	3.151	Up
10050640 3	ENSG00000159216	-	LOC100506 403	chr21	35372507	35580764	5.901	7.073	1.47E-05	8.10E-04	0.700	3.037	Up
171586	ENSG00000158201	K13696	ABHD3	chr18	21650897	21704805	5.901	7.073	1.47E-05	8.10E-04	0.612	2.837	Up
347734	ENSG00000157593	K15276	SLC35B2	chr6	44254101	44257890	5.901	7.073	1.47E-05	8.10E-04	0.486	3.017	Up
4838	ENSG00000156574	K04666	NODAL	chr10	70431936	70441709	5.901	7.073	1.47E-05	8.10E-04	0.546	2.771	Up

7074	ENSG00000156299	K05731	TIAM1	chr21	31118418	31559977	5.901	7.073	1.47E-05	8.10E-04	0.458	2.871	Up
23426	ENSG00000155974	K20251	GRIP1	chr12	66347431	67069265	5.901	7.073	1.47E-05	8.10E-04	0.458	2.612	Up
115362	ENSG00000154451	K20898	GBP5	chr1	89258950	89272861	5.901	7.073	1.47E-05	8.10E-04	0.489	2.885	Up
123872	ENSG00000154099	K19750	DNAAF1	chr16	84145260	84178761	5.901	7.073	1.46E-05	8.10E-04	0.498	2.938	Up
27287	ENSG00000151650	-	VENTX	chr10	133237904	133241930	5.901	7.073	1.46E-05	8.10E-04	0.393	3.190	Up
132320	ENSG00000151466	-	SCLT1	chr4	128875206	129093607	5.901	7.073	1.46E-05	8.10E-04	0.542	3.110	Up
57689	ENSG00000148948	K07523	LRRC4C	chr11	40107066	41460212	5.901	7.073	1.46E-05	8.10E-04	0.540	2.691	Up
23262	ENSG00000145725	K13024	PPIP5K2	chr5	103120254	103203523	5.901	7.073	1.46E-05	8.10E-04	0.410	2.900	Up
66000	ENSG00000144868	-	TMEM108	chr3	133038288	133397775	5.901	7.073	1.46E-05	8.10E-04	0.514	2.926	Up
201292	ENSG00000141569	K12031	TRIM65	chr17	75880379	75897008	5.901	7.073	1.46E-05	8.10E-04	0.603	2.756	Up
7385	ENSG00000140740	K00415	UQCRC2	chr16	21953064	21983660	5.901	7.073	1.46E-05	8.10E-04	0.417	2.815	Up
84920	ENSG00000139133	K03850	ALG10	chr12	34022281	34028302	5.901	7.073	1.46E-05	8.10E-04	0.379	2.952	Up
55435	ENSG00000138660	-	AP1AR	chr4	112231727	112273110	5.901	7.073	1.46E-05	8.10E-04	0.487	3.192	Up
10152	ENSG00000138443	K05751	ABI2	chr2	203327874	203432173	5.901	7.073	1.46E-05	8.10E-04	0.488	3.172	Up
57559	ENSG00000138134	K11867	STAMBPL1	chr10	88879368	88923502	5.901	7.073	1.46E-05	8.10E-04	0.492	3.114	Up

56886	ENSG00000136731	K11718	UGGT1	chr2	128091180	128195677	5.901	7.073	1.46E-05	8.10E-04	0.505	3.048	Up
274	ENSG00000136717	K12562	BIN1	chr2	127048023	127107400	5.901	7.073	1.46E-05	8.10E-04	0.395	3.126	Up
51719	ENSG00000135932	K08272	CAB39	chr2	230712842	230821075	5.901	7.073	1.46E-05	8.10E-04	0.527	2.863	Up
2.02E+03	ENSG00000135638	K09317	EMX1	chr2	72911147	72936691	5.901	7.073	1.46E-05	8.10E-04	0.416	3.056	Up
55065	ENSG00000132517	-	SLC52A1	chr17	5032602	5035458	5.901	7.073	1.46E-05	8.10E-04	0.486	2.960	Up
5538	ENSG00000131238	K01074	PPT1	chr1	40072710	40097470	5.901	7.073	1.46E-05	8.10E-04	0.460	3.033	Up
11046	ENSG00000130958	K15281	SLC35D2	chr9	96313437	96383710	5.901	7.073	1.46E-05	8.10E-04	0.388	2.677	Up
43847	ENSG00000129437	K09622	KLK14	chr19	51077495	51084210	5.901	7.073	1.46E-05	8.10E-04	0.553	2.833	Up
4289	ENSG00000128585	-	MKLN1	chr7	131110096	131496639	5.901	7.073	1.46E-05	8.10E-04	0.476	3.132	Up
80115	ENSG00000128298	K20127	BAIAP2L2	chr22	38084889	38110944	5.901	7.073	1.46E-05	8.10E-04	0.628	2.941	Up
9521	ENSG00000124802	K15439	EEF1E1	chr6	8073360	8102595	5.901	7.073	1.46E-05	8.10E-04	0.517	2.873	Up
203447	ENSG00000123572	K16313	NRK	chrX	105821944	105958610	5.901	7.073	1.46E-05	8.10E-04	0.415	2.796	Up
127495	ENSG00000122477	-	LRRC39	chr1	100148448	100178273	5.901	7.073	1.46E-05	8.10E-04	0.528	2.914	Up
23397	ENSG00000121152	K06676	NCAPH	chr2	96335741	96377095	5.901	7.073	1.46E-05	8.10E-04	0.600	3.002	Up

55719	ENSG00000119906	-	SLF2	chr10	100910230	100965134	5.901	7.073	1.46E-05	8.10E-04	0.483	2.839	Up
6905	ENSG00000116957	-	TBCE	chr1	235367360	235448968	5.901	7.073	1.46E-05	8.10E-04	0.505	3.104	Up
9685	ENSG00000113282	-	CLINT1	chr5	157785743	157859175	5.901	7.073	1.46E-05	8.10E-04	0.582	2.843	Up
51809	ENSG00000109586	K00710	GALNT7	chr4	173168753	173323967	5.901	7.073	1.46E-05	8.10E-04	0.542	2.871	Up
8821	ENSG00000109452	K01109	INPP4B	chr4	142023160	142846535	5.901	7.073	1.46E-05	8.10E-04	0.531	2.893	Up
843	ENSG00000003400	K04400	CASP10	chr2	201182881	201229406	5.901	7.073	1.45E-05	8.10E-04	0.507	3.147	Up
23678	ENSG00000104205	K13304	SGK3	chr8	66712418	66862022	5.901	7.073	1.45E-05	8.10E-04	0.539	2.872	Up
50615	ENSG00000103522	K05075	IL21R	chr16	27402162	27452045	5.901	7.073	1.45E-05	8.10E-04	0.489	2.951	Up
284217	ENSG00000101680	K05637	LAMA1	chr18	6941744	7117814	5.901	7.073	1.45E-05	8.10E-04	0.530	2.945	Up
8664	ENSG00000100353	K03251	EIF3D	chr22	36510850	36529431	5.901	7.073	1.45E-05	8.10E-04	0.563	3.010	Up
8897	ENSG00000100330	K18082	MTMR3	chr22	29883165	30030868	5.901	7.073	1.45E-05	8.10E-04	0.483	2.851	Up
1356	ENSG00000047457	K13624	CP	chr3	149162410	149222050	5.901	7.073	1.45E-05	8.10E-04	0.446	2.842	Up
51322	ENSG00000095787	-	WAC	chr10	28532426	28623112	5.901	7.073	1.45E-05	8.10E-04	0.590	2.561	Up
6564	ENSG00000088386	K14206	SLC15A1	chr13	98683801	98752675	5.901	7.073	1.45E-05	8.10E-04	0.542	2.879	Up
1361	ENSG00000080618	K01300	CPB2	chr13	46053186	46105076	5.901	7.073	1.45E-05	8.10E-04	0.479	2.892	Up

10129	ENSG00000073910	-	FRY	chr13	32029742	32299122	5.901	7.073	1.45E-05	8.10E-04	0.539	2.929	Up
5597	ENSG00000069956	K06855	MAPK6	chr15	52004265	52066265	5.901	7.073	1.45E-05	8.10E-04	0.557	3.020	Up
9170	ENSG00000064547	K04291	LPAR2	chr19	19623655	19628930	5.901	7.073	1.45E-05	8.10E-04	0.410	2.901	Up
23456	ENSG00000135776	K05657	ABCB10	chr1	229516582	229558987	5.853	7.025	3.49E-05	1.18E-03	0.445	2.847	Up
6284	ENSG00000189171	-	S100A13	chr1	153618799	153634092	5.819	6.991	2.03E-05	8.10E-04	0.437	2.953	Up
51616	ENSG00000187325	K03133	TAF9B	chrX	78129748	78139682	5.819	6.991	2.03E-05	8.10E-04	0.359	3.014	Up
10803	ENSG00000173585	K04184	CCR9	chr3	45886504	45903177	5.819	6.991	2.03E-05	8.10E-04	0.488	3.032	Up
92421	ENSG00000164695	K12194	CHMP4C	chr8	81732453	81759515	5.819	6.991	2.03E-05	8.10E-04	0.600	2.982	Up
26207	ENSG00000154217	-	PITPNC1	chr17	67377281	67697263	5.819	6.991	2.04E-05	8.10E-04	0.500	3.132	Up
10550	ENSG00000144746	K20393	ARL6IP5	chr3	69084939	69106088	5.819	6.991	2.04E-05	8.10E-04	0.504	2.942	Up
6386	ENSG00000137575	K17254	SDCBP	chr8	58553169	58582860	5.819	6.991	2.04E-05	8.10E-04	0.460	3.084	Up
51520	ENSG00000133706	K01869	LARS	chr5	146113026	146182787	5.819	6.991	2.04E-05	8.10E-04	0.463	3.169	Up
5623	ENSG00000125650	-	PSPN	chr19	6375294	6375849	5.819	6.991	2.04E-05	8.10E-04	0.365	2.502	Up
9181	ENSG00000116584	K12791	ARHGEF2	chr1	155946839	155991263	5.819	6.991	2.04E-05	8.10E-04	0.238	2.720	Up



6422	ENSG00000104332	K02166	SFRP1	chr8	41261957	41309471	5.819	6.991	2.05E-05	8.10E-04	0.394	2.809	Up
1308	ENSG00000065618	K07603	COL17A1	chr10	104031288	104085880	5.819	6.991	2.05E-05	8.10E-04	0.444	2.826	Up
114879	ENSG00000021762	K20464	OSBPL5	chr11	3087116	3165352	5.819	6.991	2.05E-05	8.10E-04	0.475	2.866	Up
11183	ENSG00000012983	K08833	MAP4K5	chr14	50418493	50561126	5.672	6.845	4.06E-05	1.18E-03	0.502	2.735	Up
11231	ENSG00000025796	K09540	SEC63	chr6	107867756	107958278	5.672	6.845	4.06E-05	1.18E-03	0.473	3.130	Up
7260	ENSG00000032389	-	TSSC1	chr2	3188968	3377882	5.672	6.845	4.06E-05	1.18E-03	0.573	2.960	Up
81671	ENSG00000062716	K21248	VMP1	chr17	59707502	59840593	5.672	6.845	4.06E-05	1.18E-03	0.577	2.887	Up
26031	ENSG00000070882	K20463	OSBPL3	chr7	24796537	24980218	5.672	6.845	4.05E-05	1.18E-03	0.383	2.806	Up
26034	ENSG00000074706	-	IPCEF1	chr6	154154483	154356836	5.672	6.845	4.05E-05	1.18E-03	0.600	2.753	Up
9671	ENSG00000075035	-	WSCD2	chr12	108129343	108250537	5.672	6.845	4.05E-05	1.18E-03	0.467	2.868	Up
79023	ENSG00000075188	K14302	NUP37	chr12	102074189	102120139	5.672	6.845	4.05E-05	1.18E-03	0.626	3.016	Up
9843	ENSG00000089472	K14735	HEPH	chrX	66162526	66267389	5.672	6.845	4.05E-05	1.18E-03	0.401	2.928	Up
78990	ENSG00000089723	K09603	OTUB2	chr14	94016083	94048933	5.672	6.845	4.05E-05	1.18E-03	0.480	2.854	Up
84196	ENSG00000090686	K11858	USP48	chr1	21678298	21783620	5.672	6.845	4.04E-05	1.18E-03	0.481	2.739	Up
5714	ENSG00000099341	K03031	PSMD8	chr19	38374550	38383824	5.672	6.845	4.04E-05	1.18E-03	0.604	2.755	Up

55007	ENSG00000100376	-	FAM118A	chr22	45309200	45341955	5.672	6.845	4.04E-05	1.18E-03	0.499	3.019	Up
9097	ENSG00000101557	K11843	USP14	chr18	158483	213739	5.672	6.845	4.04E-05	1.18E-03	0.541	3.118	Up
7727	ENSG00000103343	K09230	ZNF174	chr16	3401190	3409364	5.672	6.845	4.04E-05	1.18E-03	0.234	2.533	Up
11062	ENSG00000105865	K05545	DUS4L	chr7	107563957	107578523	5.672	6.845	4.03E-05	1.18E-03	0.495	2.990	Up
55744	ENSG00000106603	K18173	COA1	chr7	43608452	43729541	5.672	6.845	4.03E-05	1.18E-03	0.371	2.723	Up
22897	ENSG00000110274	K16462	CEP164	chr11	117316346	117413266	5.672	6.845	4.03E-05	1.18E-03	0.409	2.788	Up
2.31E+04	ENSG00000113048	K17406	MRPS27	chr5	72219409	72320257	5.672	6.845	4.03E-05	1.18E-03	0.675	2.847	Up
22937	ENSG00000114650	-	SCAP	chr3	47413685	47477126	5.672	6.845	4.03E-05	1.18E-03	0.483	2.789	Up
57599	ENSG00000114742	K15361	WDR48	chr3	39051986	39096671	5.672	6.845	4.03E-05	1.18E-03	0.393	2.805	Up
3964	ENSG00000116977	K06832	LGALS8	chr1	236518214	236552981	5.672	6.845	4.02E-05	1.18E-03	0.577	2.831	Up
1266	ENSG00000117519	-	CNN3	chr1	94896949	94927223	5.672	6.845	4.02E-05	1.18E-03	0.570	3.268	Up
55234	ENSG00000122692	K13111	SMU1	chr9	33041852	33076716	5.672	6.845	4.02E-05	1.18E-03	0.347	3.095	Up
11059	ENSG00000123124	K05633	WWP1	chr8	86342711	86468357	5.672	6.845	4.02E-05	1.18E-03	0.472	2.842	Up
976	ENSG00000123146	K08446	ADGRE5	chr19	14381144	14408725	5.672	6.845	4.02E-05	1.18E-03	0.428	3.016	Up

9271	ENSG00000125207	K02156	PIWIL1	chr12	130337887	130412708	5.672	6.845	4.02E-05	1.18E-03	0.446	2.919	Up
30833	ENSG00000125458	K01081	NT5C	chr17	75130225	75131965	5.672	6.845	4.01E-05	1.18E-03	0.484	3.159	Up
56912	ENSG00000118096	K19682	IFT46	chr11	118544528	118575624	5.617	6.790	5.95E-05	1.62E-03	0.387	3.196	Up
4820	ENSG00000114857	K12740	NKTR	chr3	42600655	42648741	5.617	6.790	5.95E-05	1.62E-03	0.492	3.261	Up
898	ENSG00000105173	K06626	CCNE1	chr19	29811994	29824317	5.617	6.790	5.95E-05	1.62E-03	0.491	2.850	Up
660	ENSG00000102010	K08896	BMX	-	-	-	5.617	6.790	5.94E-05	1.62E-03	0.940	2.810	Up
5360	ENSG00000100979	K08761	PLTP	chr20	45898620	45912364	5.617	6.790	5.94E-05	1.62E-03	0.492	3.068	Up
55322	ENSG00000082213	-	C5orf22	chr5	31532086	31555058	5.617	6.790	5.94E-05	1.62E-03	0.465	2.796	Up
9063	ENSG00000078043	K16063	PIAS2	chr18	46803224	46920167	5.617	6.790	5.93E-05	1.62E-03	0.345	3.388	Up
9462	ENSG00000075391	K17633	RASAL2	chr1	178093729	178479514	5.617	6.790	5.93E-05	1.62E-03	0.424	3.089	Up
80243	ENSG00000046889	K17588	PREX2	chr8	67951921	68237033	5.617	6.790	5.92E-05	1.62E-03	0.374	3.145	Up
26064	ENSG00000039560	-	RAI14	chr5	34656328	34832612	5.617	6.790	5.92E-05	1.62E-03	0.551	2.682	Up
163	ENSG00000006125	K11825	AP2B1	chr17	35586899	35726417	5.617	6.790	5.92E-05	1.62E-03	0.459	2.674	Up
5832	ENSG00000059573	K12657	ALDH18A1	chr10	95605929	95656810	5.615	6.789	8.49E-05	1.99E-03	0.475	3.040	Up

3938	ENSG00000115850	K01229	LCT	chr2	135787840	135837200	5.615	6.789	8.49E-05	1.99E-03	0.463	2.601	Up
509	ENSG00000165629	K02136	ATP5C1	chr10	7788104	7807801	5.615	6.789	8.49E-05	1.99E-03	0.508	2.709	Up
598	ENSG00000171552	K04570	BCL2L1	chr20	31664452	31723999	5.615	6.789	8.50E-05	1.99E-03	0.388	2.920	Up
7982	ENSG00000004866	-	ST7	chr7	116953327	117230023	5.441	6.616	9.12E-05	1.99E-03	0.488	2.843	Up
221	ENSG00000006534	K00129	ALDH3B1	chr11	68008547	68029282	5.441	6.616	9.12E-05	1.99E-03	0.351	3.298	Up
1355	ENSG00000014919	K02259	COX15	chr10	99694793	99732667	5.441	6.616	9.12E-05	1.99E-03	0.447	2.518	Up
4162	ENSG00000076706	K06534	MCAM	chr11	119308524	119317132	5.441	6.616	9.13E-05	1.99E-03	0.563	3.087	Up
1795	ENSG00000088538	K05727	DOCK3	chr3	50674969	51384198	5.441	6.616	9.13E-05	1.99E-03	0.521	2.971	Up
11069	ENSG00000091428	K04351	RAPGEF4	chr2	172735282	173052893	5.441	6.616	9.13E-05	1.99E-03	0.500	2.829	Up
113177	ENSG00000099840	-	IZUMO4	chr14	35401510	35404754	5.441	6.616	9.13E-05	1.99E-03	0.415	3.028	Up
4792	ENSG00000100906	K04734	NFKBIA	chr19	2096848	2099590	5.441	6.616	9.14E-05	1.99E-03	0.479	3.073	Up
2321	ENSG00000102755	K05096	FLT1	-	-	-	5.441	6.616	9.14E-05	1.99E-03	0.457	2.988	Up
23417	ENSG00000103150	K01578	MLYCD	chr16	83899125	83916182	5.441	6.616	9.14E-05	1.99E-03	0.519	3.277	Up
79852	ENSG00000105131	-	EPHX3	chr19	15226919	15233047	5.441	6.616	9.14E-05	1.99E-03	0.596	3.128	Up
79165	ENSG00000105617	-	LENG1	chr19	54155639	54159743	5.441	6.616	9.15E-05	1.99E-03	0.492	2.848	Up

6878	ENSG00000106290	K03131	TAF6	chr7	100107070	100119858	5.441	6.616	9.15E-05	1.99E-03	0.549	3.005	Up
26118	ENSG00000109046	K10341	WSB1	chr4	108620558	108630484	5.441	6.616	9.15E-05	1.99E-03	0.472	2.966	Up
6164	ENSG00000109475	K02915	RPL34	chr17	27294080	27313631	5.441	6.616	9.15E-05	1.99E-03	0.529	3.037	Up
5777	ENSG00000111679	K05697	PTPN6	chr12	6946576	6961316	5.441	6.616	9.16E-05	1.99E-03	0.492	2.574	Up
7841	ENSG00000115275	K01228	MOGS	chr2	74461057	74465410	5.441	6.616	9.16E-05	1.99E-03	0.526	2.989	Up
3155	ENSG00000117305	K01640	HMGCL	chr1	23801877	23825459	5.441	6.616	9.16E-05	1.99E-03	0.484	2.960	Up
4656	ENSG00000122180	K18483	MYOG	chr1	203083129	203086038	5.441	6.616	9.16E-05	1.99E-03	0.490	2.939	Up
64756	ENSG00000123472	K07555	ATPAF1	chr1	46635039	46668427	5.441	6.616	9.17E-05	1.99E-03	0.431	3.008	Up
83732	ENSG00000124784	K07178	RIOK1	chr6	7389816	7418037	5.441	6.616	9.17E-05	1.99E-03	0.644	3.057	Up
8195	ENSG00000125863	K09492	MKKS	chr20	10404780	10434239	5.441	6.616	9.17E-05	1.99E-03	0.384	2.651	Up
55112	ENSG00000126870	-	WDR60	chr7	158839250	158958695	5.441	6.616	9.27E-05	1.99E-03	0.378	3.389	Up
9518	ENSG00000130513	K05504	GDF15	chr19	18386158	18389176	5.441	6.616	9.37E-05	1.99E-03	0.532	3.298	Up
10487	ENSG00000131236	K17261	CAP1	chr1	40040070	40072649	5.441	6.616	9.48E-05	1.99E-03	0.493	3.158	Up
84106	ENSG00000133246	K19994	PRAM1	chr19	8490055	8502654	5.441	6.616	9.58E-05	1.99E-03	0.515	3.010	Up

84953	ENSG00000133808	-	MICALCL	chr11	12286900	12359144	5.441	6.616	9.58E-05	1.99E-03	0.429	2.755	Up
3364	ENSG00000136273	K10903	HUS1	chr7	47962980	47979625	5.441	6.616	9.59E-05	1.99E-03	0.541	2.877	Up
25822	ENSG00000137094	K09511	DNAJB5	chr9	34989369	34998433	5.441	6.616	9.59E-05	1.99E-03	0.431	2.953	Up
27283	ENSG00000137251	-	TINAG	chr6	54307792	54390152	5.441	6.616	9.59E-05	1.99E-03	0.529	2.901	Up
55165	ENSG00000138180	K16456	CEP55	chr10	93496612	93529094	5.441	6.616	9.59E-05	1.99E-03	0.477	3.309	Up
81614	ENSG00000140157	-	NIPA2	chr15	22838641	22868384	5.441	6.616	9.59E-05	1.99E-03	0.553	2.957	Up
10410	ENSG00000142089	K06566	IFITM3	chr11	319673	320914	5.441	6.616	9.60E-05	1.99E-03	0.604	2.763	Up
80162	ENSG00000142102	-	ATHL1	chr11	287760	295688	5.441	6.616	9.60E-05	1.99E-03	0.502	2.868	Up
387597	ENSG00000143195	-	ILDR2	chr1	166913204	166975324	5.441	6.616	9.60E-05	1.99E-03	0.545	3.163	Up
57038	ENSG00000146282	K01887	RARS2	chr4	155903693	155920406	5.441	6.616	9.60E-05	1.99E-03	0.544	3.009	Up
6999	ENSG00000151790	K00453	TDO2	chr6	87513744	87590032	5.441	6.616	9.61E-05	1.99E-03	0.534	2.949	Up
145773	ENSG00000157470	-	FAM81A	chr15	59399662	59523555	5.441	6.616	9.61E-05	1.99E-03	0.569	3.015	Up
150082	ENSG00000157578	-	LCA5L	chr21	39405844	39445796	5.441	6.616	9.61E-05	1.99E-03	0.519	2.723	Up
26504	ENSG00000158158	K16302	CNNM4	chr2	96760902	96811891	5.441	6.616	9.61E-05	1.99E-03	0.536	2.874	Up
3455	ENSG00000159110	K05131	IFNAR2	chr21	33229895	33264513	5.441	6.616	9.62E-05	1.99E-03	0.425	2.804	Up

114757	ENSG00000161544	-	CYGB	chr17	76527348	76557692	5.441	6.616	9.62E-05	1.99E-03	0.564	2.928	Up
81493	ENSG00000162520	K10377	SYNC	chr1	32679906	32702760	5.441	6.616	9.62E-05	1.99E-03	0.471	2.794	Up
11009	ENSG00000162892	K05444	IL24	chr1	206897404	206904139	5.441	6.616	9.62E-05	1.99E-03	0.548	2.858	Up
308	ENSG00000164111	K16646	ANXA5	chr4	121667997	121696992	5.441	6.616	9.62E-05	1.99E-03	0.547	2.667	Up
2150	ENSG00000164251	K04234	F2RL1	chr5	76819008	76835315	5.441	6.616	9.63E-05	1.99E-03	0.435	2.730	Up
50810	ENSG00000166503	-	HDGFRP3	chr15	83112738	83208018	5.441	6.616	9.63E-05	1.99E-03	0.447	3.081	Up
125058	ENSG00000167291	-	TBC1D16	chr17	79932343	80035875	5.441	6.616	9.63E-05	1.99E-03	0.451	3.248	Up
54619	ENSG00000107443	-	CCNJ	chr10	96042848	96060870	-5.881	3.784	2.21E-05	8.10E-04	0.456	2.934	Down
51184	ENSG00000111231	K06883	GPN3	chr12	110452486	110468835	-5.881	3.784	2.21E-05	8.10E-04	0.572	3.008	Down
4739	ENSG00000111859	K16832	NEDD9	chr6	11183298	11382348	-5.881	3.784	2.21E-05	8.10E-04	0.425	2.750	Down
27031	ENSG00000113971	K19360	NPHP3	chr3	132680609	132722459	-5.881	3.784	2.21E-05	8.10E-04	0.550	2.984	Down
2888	ENSG00000115290	-	GRB14	chr2	164492406	164621850	-5.881	3.784	2.21E-05	8.10E-04	0.238	2.189	Down
9887	ENSG00000116698	K14409	SMG7	chr1	183471962	183554193	-5.881	3.784	2.21E-05	8.10E-04	0.484	2.984	Down
5825	ENSG00000117528	K05677	ABCD3	chr1	94385106	94518663	-5.881	3.784	2.21E-05	8.10E-04	0.451	2.617	Down
196483	ENSG00000118894	-	EEF2KMT	chr16	5084298	5097820	-5.881	3.784	2.21E-05	8.10E-04	0.433	2.810	Down

83544	ENSG00000119661	K10411	DNAL1	chr14	73644875	73703728	-5.881	3.784	2.21E-05	8.10E-04	0.445	3.295	Down
10755	ENSG00000123159	K20056	GIPC1	chr19	14477759	14496149	-5.881	3.784	2.21E-05	8.10E-04	0.400	2.688	Down
80776	ENSG00000123810	K16745	B9D2	chr19	41354417	41364540	-5.881	3.784	2.21E-05	8.10E-04	0.411	2.637	Down
5266	ENSG00000124102	-	PI3	-	-	-	-5.881	3.784	2.21E-05	8.10E-04	0.455	2.899	Down
140825	ENSG00000124257	K16782	NEURL2	chr20	45888472	45891287	-5.881	3.784	2.21E-05	8.10E-04	0.490	2.878	Down
652	ENSG00000125378	K04662	BMP4	-	-	-	-5.881	3.784	2.21E-05	8.10E-04	0.453	2.368	Down
23352	ENSG00000127481	K10691	UBR4	chr1	19074506	19210334	-5.881	3.784	2.21E-05	8.10E-04	0.422	2.863	Down
9982	ENSG00000137440	-	FGFBP1	chr4	15935569	15938740	-5.881	3.784	2.20E-05	8.10E-04	0.491	3.281	Down
51067	ENSG00000139131	K01866	YARS2	chr12	32725247	32755961	-5.881	3.784	2.20E-05	8.10E-04	0.569	2.699	Down
2312	ENSG00000143631	-	FLG	-	-	-	-5.881	3.784	2.20E-05	8.10E-04	0.471	2.850	Down
51601	ENSG00000144182	K10105	LIPT1	chr2	99154955	99163157	-5.881	3.784	2.20E-05	8.10E-04	0.456	2.906	Down
3680	ENSG00000144668	K06585	ITGA9	chr3	37452322	37819790	-5.881	3.784	2.20E-05	8.10E-04	0.524	2.647	Down
152404	ENSG00000144847	K06791	IGSF11	chr3	118900630	119146068	-5.881	3.784	2.20E-05	8.10E-04	0.445	2.797	Down
653333	ENSG00000145002	-	FAM86B2	chr8	12424419	12436418	-5.881	3.784	2.20E-05	8.10E-04	0.358	2.921	Down
153830	ENSG00000145860	-	RNF145	chr5	159157409	159210053	-5.881	3.784	2.20E-05	8.10E-04	0.517	2.765	Down



84651	ENSG00000145879	-	SPINK7	chr5	148312427	148315919	-5.881	3.784	2.20E-05	8.10E-04	0.356	3.282	Down
5631	ENSG00000147224	K00948	PRPS1	chrX	107628424	107651026	-5.881	3.784	2.20E-05	8.10E-04	0.521	3.062	Down
56169	ENSG00000147697	-	GSDMC	-	-	-	-5.881	3.784	2.20E-05	8.10E-04	0.503	2.968	Down
79096	ENSG00000149179	-	C11orf49	chr11	46936524	47164381	-5.881	3.784	2.20E-05	8.10E-04	0.525	2.940	Down
124446	ENSG00000149932	-	TMEM219	chr16	29962030	29973052	-5.881	3.784	2.20E-05	8.10E-04	0.492	2.871	Down
51594	ENSG00000151779	K20473	NBAS	chr2	14998067	15561348	-5.881	3.784	2.20E-05	8.10E-04	0.461	3.012	Down
3087	ENSG00000152804	K08024	HHEX	-	-	-	-5.881	3.784	2.20E-05	8.10E-04	0.459	2.840	Down
139322	ENSG00000155008	-	APOOL	chrX	85003852	85093317	-5.881	3.784	2.20E-05	8.10E-04	0.455	2.841	Down
26285	ENSG00000156282	K06087	CLDN17	-	-	-	-5.881	3.784	2.20E-05	8.10E-04	0.513	3.141	Down
5097	ENSG00000156453	K16498	PCDH1	chr5	141852319	141878410	-5.881	3.784	2.20E-05	8.10E-04	0.408	2.849	Down
84187	ENSG00000157600	-	TMEM164	chrX	110002413	110184438	-5.881	3.784	2.20E-05	8.10E-04	0.554	2.736	Down
10239	ENSG00000157823	K12399	AP3S2	chr15	89830599	89894385	-5.881	3.784	2.20E-05	8.10E-04	0.406	3.299	Down
266747	ENSG00000159496	-	RGL4	chr22	23690861	23699176	-5.881	3.784	2.20E-05	8.10E-04	0.496	2.952	Down
1476	ENSG00000160213	K13907	CSTB	-	-	-	-5.881	3.784	2.20E-05	8.10E-04	0.449	2.986	Down

51160	ENSG00000160948	K12184	VPS28	chr8	144423601	144428563	-5.881	3.784	2.20E-05	8.10E-04	0.481	2.558	Down
93099	ENSG00000161249	-	DMKN	-	-	-	-5.881	3.784	2.20E-05	8.10E-04	0.434	3.092	Down
54987	ENSG00000162384	-	C1orf123	chr1	53214099	53220639	-5.881	3.784	2.20E-05	8.10E-04	0.298	2.640	Down
79961	ENSG00000162777	K20161	DENND2D	chr1	111185969	111204791	-5.881	3.784	2.20E-05	8.10E-04	0.487	3.036	Down
55139	ENSG00000163516	-	ANKZF1	chr2	219229757	219236669	-5.881	3.784	2.20E-05	8.10E-04	0.428	2.738	Down
23429	ENSG00000163602	K11469	RYBP	chr3	72374593	72446623	-5.881	3.784	2.20E-05	8.10E-04	0.495	2.490	Down
84448	ENSG00000163995	K07520	ABLIM2	chr4	7965310	8158832	-5.881	3.784	2.20E-05	8.10E-04	0.655	3.186	Down
153642	ENSG00000164291	K12376	ARSK	chr5	95555108	95605102	-5.881	3.784	2.19E-05	8.10E-04	0.486	3.029	Down
29896	ENSG00000164548	K12897	TRA2A	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.584	2.892	Down
9790	ENSG00000165733	K14569	BMS1	chr10	42782506	42834937	-5.881	3.784	2.19E-05	8.10E-04	0.495	2.840	Down
11051	ENSG00000167005	K14397	NUDT21	chr16	56429136	56451349	-5.881	3.784	2.19E-05	8.10E-04	0.470	2.818	Down
94274	ENSG00000167641	K12328	PPP1R14A	chr19	38251237	38256591	-5.881	3.784	2.19E-05	8.10E-04	0.434	2.836	Down
64073	ENSG00000167644	-	C19orf33	chr19	38304161	38305006	-5.881	3.784	2.19E-05	8.10E-04	0.452	3.023	Down
26085	ENSG00000167759	K09463	KLK13	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.331	2.876	Down
11314	ENSG00000167851	K06719	CD300A	chr17	74466320	74484798	-5.881	3.784	2.19E-05	8.10E-04	0.374	2.963	Down

94031	ENSG00000170801	K08785	HTRA3	chr4	8269757	8307111	-5.881	3.784	2.19E-05	8.10E-04	0.351	3.364	Down
150678	ENSG00000172428	-	MYEOV2	chr2	240126548	240136802	-5.881	3.784	2.19E-05	8.10E-04	0.468	2.824	Down
54676	ENSG00000172432	-	GTPBP2	chr6	43620481	43629246	-5.881	3.784	2.19E-05	8.10E-04	0.387	2.850	Down
5095	ENSG00000175198	K01965	PCCA	chr13	100089015	100530437	-5.881	3.784	2.19E-05	8.10E-04	0.405	3.040	Down
57628	ENSG00000175497	-	DPP10	chr2	114442358	115845752	-5.881	3.784	2.19E-05	8.10E-04	0.500	3.500	Down
146691	ENSG00000175662	-	TOM1L2	chr17	17843508	17972470	-5.881	3.784	2.19E-05	8.10E-04	0.610	3.280	Down
23399	ENSG00000175826	K17617	CTDNEP1	chr17	7243587	7251940	-5.881	3.784	2.19E-05	8.10E-04	0.632	2.959	Down
125228	ENSG00000177150	-	FAM210A	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.522	3.141	Down
1176	ENSG00000177879	K12399	AP3S1	chr5	115841606	115914081	-5.881	3.784	2.19E-05	8.10E-04	0.446	2.905	Down
79730	ENSG00000179299	-	NSUN7	chr4	40749874	40810601	-5.881	3.784	2.19E-05	8.10E-04	0.375	2.909	Down
5551	ENSG00000180644	K07818	PRF1	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.432	2.823	Down
79642	ENSG00000180801	K12375	ARSJ	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.409	3.201	Down
64928	ENSG00000180992	K02874	MRPL14	chr6	44113454	44127491	-5.881	3.784	2.19E-05	8.10E-04	0.402	2.883	Down
84282	ENSG00000181481	K16272	RNF135	chr17	30968642	30999911	-5.881	3.784	2.19E-05	8.10E-04	0.499	3.110	Down

161291	ENSG00000182107	-	TMEM30B	chr14	61277370	61281812	-5.881	3.784	2.19E-05	8.10E-04	0.505	2.921	Down
8905	ENSG00000182287	K12394	AP1S2	chrX	15825806	15855014	-5.881	3.784	2.19E-05	8.10E-04	0.448	2.763	Down
7378	ENSG00000183696	K00757	UPP1	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.478	3.094	Down
390928	ENSG00000183760	-	ACP7	-	-	-	-5.881	3.784	2.19E-05	8.10E-04	0.469	3.098	Down
219527	ENSG00000183908	-	LRRC55	chr11	57181747	57191714	-5.881	3.784	2.19E-05	8.10E-04	0.482	2.864	Down
6586	ENSG00000184347	K06850	SLIT3	chr5	168661733	169301129	-5.881	3.784	2.19E-05	8.10E-04	0.520	3.150	Down
26985	ENSG00000185009	K12398	AP3M1	chr10	74120257	74151085	-5.881	3.784	2.19E-05	8.10E-04	0.516	3.270	Down
64853	ENSG00000186063	-	AIDA	chr1	222668013	222712522	-5.881	3.784	2.19E-05	8.10E-04	0.367	2.747	Down
84842	ENSG00000186603	-	HPDL	chr1	45326873	45328675	-5.881	3.784	2.18E-05	8.10E-04	0.429	3.054	Down
11122	ENSG00000196090	K13297	PTPRT	chr20	42072752	43189917	-5.881	3.784	2.18E-05	8.10E-04	0.501	2.986	Down
8644	ENSG00000196139	K04119	AKR1C3	chr10	5048766	5107686	-5.881	3.784	2.18E-05	8.10E-04	0.401	2.814	Down
8909	ENSG00000111405	K14648	ENDOU	-	-	-	-6.880	4.636	1.05E-06	8.10E-04	0.433	2.749	Down
56954	ENSG00000114021	K13566	NIT2	chr3	100334718	100355634	-6.880	4.636	1.05E-06	8.10E-04	0.554	3.089	Down
347404	ENSG00000147036	-	LANCL3	-	-	-	-6.880	4.636	1.05E-06	8.10E-04	0.493	3.114	Down
5681	ENSG00000159792	K08808	PSKH1	chr16	67893272	67929678	-6.880	4.636	1.05E-06	8.10E-04	0.529	2.583	Down

83700	ENSG00000166086	K06785	JAM3	chr11	134068925	134151757	-6.880	4.636	1.04E-06	8.10E-04	0.487	2.990	Down
374454	ENSG00000189182	K07605	KRT77	-	-	-	-6.880	4.636	1.04E-06	8.10E-04	0.483	3.102	Down

**Table S6. Pathways enriched by genes encoding up regulated and down regulated proteins.**

Type	Gene Set Name	k/K	p-value	FDR q-value	Genes In Gene Set	Genes In Overlap
Up regulated proteins	Endocytosis	0.055	7.25E-05	0.008	183	10
	Apoptosis	0.080	8.70E-05	0.008	88	7
	Ubiquitin mediated proteolysis	0.058	2.53E-04	0.016	138	8
	Cytokine-cytokine receptor interaction	0.041	3.83E-04	0.018	267	11
	Jak-STAT signaling pathway	0.052	5.52E-04	0.021	155	8
	Parkinson's disease	0.053	1.08E-03	0.030	133	7
	Regulation of actin cytoskeleton	0.042	1.18E-03	0.030	216	9
	Insulin signaling pathway	0.051	1.28E-03	0.030	137	7
	RIG-I-like receptor signaling pathway	0.070	1.56E-03	0.030	71	5
	Amino sugar and nucleotide sugar metabolism	0.091	1.81E-03	0.030	44	4
Proteasome	0.083	2.50E-03	0.031	48	4	

Leukocyte transendothelial migration	0.051	2.89E-03	0.034	118	6
Small cell lung cancer	0.060	3.27E-03	0.036	84	5
TGF-beta signaling pathway	0.058	3.62E-03	0.037	86	5
Inositol phosphate metabolism	0.074	3.85E-03	0.037	54	4
Neurotrophin signaling pathway	0.048	3.99E-03	0.037	126	6
Down regulated proteins					
Peroxisome	0.064	3.56E-04	0.035	78	5
Lysosome	0.050	3.71E-04	0.035	121	6

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