

**Supplementary Table 2.**

Complete set of differentially expressed genes in response to SF in the BG compared to DMSO control in HepG2 cells.

Gene Symbol	Ensembl ID	Basal Glucose	
		Fold <sup>1</sup> Change	qvalue <sup>2</sup>
AAAS	ENSG00000094914	-1.42	0.03
AAED1	ENSG00000158122	1.8	0.05
AATK	ENSG00000181409	-1.78	0.02
ABALON	ENSG00000281376	2.62	0.02
ABCA3	ENSG00000167972	-9.78	0.00
ABCB1	ENSG00000085563	1.64	0.00
ABCB9	ENSG00000150967	-1.47	0.03
ABCC1	ENSG00000103222	1.56	0.01
ABCC2	ENSG00000023839	2.27	0.00
ABCC3	ENSG00000108846	2.46	0.00
ABCC6	ENSG00000091262	-1.59	0.00
ABCC6P1	ENSG00000256340	-1.54	0.00
ABCC6P2	ENSG00000255277	-1.47	0.03
ABCE1	ENSG00000164163	1.68	0.01
ABCG2	ENSG00000118777	1.88	0.00
ABCG8	ENSG00000143921	-1.61	0.01
ABHD16A	ENSG00000204427	-1.39	0.04
ABHD4	ENSG00000100439	2.14	0.00
ABR	ENSG00000159842	1.52	0.00
AC002524.1	ENSG00000233247	1.85	0.03
AC002546.1	ENSG00000267194	-5.03	0.01
AC004980.1	ENSG00000205485	1.46	0.04
AC005224.4	ENSG00000266709	-1.34	0.01
AC006001.2	ENSG00000226824	-2.43	0.02
AC007249.2	ENSG00000257135	1.63	0.04
AC007319.1	ENSG00000224063	-1.67	0.01
AC009133.1	ENSG00000238045	-3.36	0.03
AC009501.1	ENSG00000231609	2.48	0.04
AC011043.2	ENSG00000278198	-1.73	0.01
AC022149.1	ENSG00000269378	1.44	0.02
AC025180.1	ENSG00000249899	7	0.05
AC073611.1	ENSG00000257605	2.44	0.04
AC080128.1	ENSG00000244062	-2.10	0.00
AC083809.1	ENSG00000277247	2.32	0.00
AC083841.1	ENSG00000253196	-2.51	0.00
AC090772.3	ENSG00000265750	-100.43	0.00
AC091173.1	ENSG00000251127	15.49	0.00
AC093673.1	ENSG00000232533	1.82	0.01
AC093768.1	ENSG00000183199	1.4	0.01

AC093909.1	ENSG00000180015	4.34	0.01
AC098934.1	ENSG00000214796	-2.01	0.03
AC098934.2	ENSG00000234996	-2.07	0.05
AC100810.3	ENSG00000282021	4.51	0.05
AC104532.1	ENSG00000267314	-1.89	0.02
AC104809.2	ENSG00000233392	-2.60	0.02
AC106739.1	ENSG00000274092	6.17	0.01
AC108488.1	ENSG00000242282	1.52	0.03
AC111200.2	ENSG00000231351	-2.27	0.04
AC113189.2	ENSG00000262880	-1.40	0.02
AC137932.2	ENSG00000261253	7.48	0.01
AC141928.1	ENSG00000250986	-1.88	0.05
AC239859.6	ENSG00000277702	1.55	0.04
AC243964.2	ENSG00000266903	-1.77	0.01
AC243965.2	ENSG00000275552	3.45	0.01
ACADS	ENSG00000122971	-1.43	0.03
ACBD7	ENSG00000176244	-2.91	0.00
ACSF2	ENSG00000167107	-1.54	0.03
ACSL1	ENSG00000151726	-1.27	0.04
ACSL5	ENSG00000197142	2.2	0.00
ACSM2B	ENSG00000066813	-1.65	0.02
ACSS1	ENSG00000154930	-1.84	0.00
ACSS2	ENSG00000131069	-1.69	0.01
ACTA2	ENSG00000107796	-2.00	0.01
ACTR3	ENSG00000115091	1.28	0.05
ACVR1	ENSG00000115170	1.57	0.00
ACY3	ENSG00000132744	-3.05	0.00
ADAM17	ENSG00000151694	1.5	0.05
ADAMTS1	ENSG00000154734	-5.70	0.00
ADAMTS13	ENSG00000160323	-2.46	0.00
ADAMTS4	ENSG00000158859	1.79	0.00
ADAMTSL2	ENSG00000197859	-1.53	0.02
ADAMTSL4- AS1	ENSG00000203804	2.24	0.00
ADCY1	ENSG00000164742	-2.81	0.01
ADCY3	ENSG00000138031	-5.39	0.00
ADCY6	ENSG00000174233	-1.48	0.02
ADGRD1	ENSG00000111452	-2.71	0.01
ADGRG1	ENSG00000205336	-1.85	0.00
ADGRL1	ENSG00000072071	-2.99	0.00
ADGRV1	ENSG00000164199	-2.62	0.04
ADK	ENSG00000156110	1.27	0.04
ADM	ENSG00000148926	1.81	0.04
AFMID	ENSG00000183077	-1.45	0.02
AFP	ENSG00000081051	-1.47	0.00
AGBL5	ENSG00000084693	-1.41	0.00

AGO2	ENSG00000123908	1.66	0.01
AGXT	ENSG00000172482	-2.16	0.00
AHDC1	ENSG00000126705	-1.39	0.04
AIF1L	ENSG00000126878	-1.77	0.04
AK4P3	ENSG00000233381	1.32	0.05
AKAP12	ENSG00000131016	2.98	0.00
AKR1B10	ENSG00000198074	11.19	0.00
AKR1B10P1	ENSG00000213606	18.82	0.00
AKR1C1	ENSG00000187134	5.14	0.00
AKR1C2	ENSG00000151632	8.19	0.00
AKR1D1	ENSG00000122787	-2.53	0.00
AKT3	ENSG00000117020	-56.89	0.00
AL031058.1	ENSG00000261189	2.52	0.00
AL031587.5	ENSG00000278948	-1.88	0.01
AL035425.3	ENSG00000261409	-1629.26	0.00
AL109615.3	ENSG00000237686	-3.66	0.00
AL121832.3	ENSG00000275437	-2.79	0.00
AL121906.2	ENSG00000275223	3.28	0.02
AL157871.6	ENSG00000259052	-2.01	0.00
AL161669.1	ENSG00000259444	-2.04	0.00
AL161772.1	ENSG00000278291	1.44	0.05
AL353747.3	ENSG00000231720	-1.99	0.01
AL365181.3	ENSG00000272405	1.45	0.00
AL365203.1	ENSG00000229656	3.83	0.02
AL391422.3	ENSG00000270504	1.67	0.01
AL445183.3	ENSG00000236360	1.93	0.04
AL451042.2	ENSG00000227959	3.89	0.00
AL590004.4	ENSG00000260604	4.6	0.00
AL590094.1	ENSG00000233593	-1.74	0.04
AL590705.5	ENSG00000254876	-2.06	0.03
AL845321.1	ENSG00000228522	2.29	0.00
ALAD	ENSG00000148218	-1.64	0.00
ALDH18A1	ENSG00000059573	-1.29	0.02
ALDH1A1	ENSG00000165092	2	0.00
ALDH1A2	ENSG00000128918	-14.42	0.00
ALDH1L1	ENSG00000144908	1.88	0.00
ALDH3B1	ENSG00000006534	-2.51	0.00
ALDH6A1	ENSG00000119711	-1.56	0.01
ALDH7A1	ENSG00000164904	-1.35	0.02
ALDH9A1	ENSG00000143149	-1.26	0.04
ALOX12P2	ENSG00000262943	1.7	0.03
AMDHD1	ENSG00000139344	-2.04	0.00
AMN1	ENSG00000151743	1.99	0.01
AMOT	ENSG00000126016	-340.14	0.00
AMOTL1	ENSG00000166025	-380.04	0.00
ANGPTL1	ENSG00000116194	-1.95	0.00

ANKRD1	ENSG00000148677	1.89	0.01
ANKRD54	ENSG00000100124	-1.73	0.03
ANKRD65	ENSG00000235098	-1.80	0.01
ANPEP	ENSG00000166825	-1.47	0.01
ANTXR1	ENSG00000169604	-1.42	0.03
ANTXR2	ENSG00000163297	1.65	0.01
ANXA2	ENSG00000182718	1.45	0.02
ANXA2P2	ENSG00000231991	2.44	0.02
ANXA4	ENSG00000196975	-1.33	0.02
ANXA9	ENSG00000143412	-1.92	0.00
AOC3	ENSG00000131471	-1.53	0.00
AP000777.3	ENSG00000256813	-5.58	0.01
AP001318.3	ENSG00000255062	2.86	0.03
APBA2	ENSG00000034053	-2.64	0.00
APBB1	ENSG00000166313	-4.32	0.00
APCDD1	ENSG00000154856	-1.89	0.03
APOA1	ENSG00000118137	-1.55	0.03
APOA4	ENSG00000110244	-2.01	0.03
APOA5	ENSG00000110243	-1.77	0.00
APOBEC3C	ENSG00000244509	-1.39	0.01
APOBEC3G	ENSG00000239713	-3.36	0.00
APOC3	ENSG00000110245	-2.11	0.00
APOF	ENSG00000175336	-1.49	0.01
APOH	ENSG00000091583	-1.48	0.00
AQP11	ENSG00000178301	-2.00	0.00
AQP3	ENSG00000165272	2.36	0.00
AQP7P1	ENSG00000186466	1.88	0.04
ARAP1	ENSG00000186635	-1.53	0.02
ARAP2	ENSG00000047365	2.65	0.03
ARAP3	ENSG00000120318	2.36	0.03
AREG	ENSG00000109321	2.64	0.00
ARFGEF3	ENSG00000112379	1.66	0.03
ARHGAP33	ENSG00000004777	-2.97	0.00
ARHGAP5- AS1	ENSG00000258655	1.67	0.02
ARHGEF39	ENSG00000137135	-1.41	0.03
ARHGEF40	ENSG00000165801	-1.42	0.00
ARL10	ENSG00000175414	-14.83	0.00
ARNT	ENSG00000143437	-1.29	0.04
ARNT2	ENSG00000172379	-1.75	0.02
ARNTL	ENSG00000133794	-1.59	0.02
ARRDC4	ENSG00000140450	-2.46	0.01
ARSB	ENSG00000113273	2	0.00
ARSI	ENSG00000183876	-2.71	0.00
ART4	ENSG00000111339	-1.38	0.04
ASAP2	ENSG00000151693	2.12	0.00

ASAP3	ENSG00000088280	-1.62	0.01
ASB4	ENSG00000005981	1.69	0.00
ASF1A	ENSG00000111875	2.27	0.00
ASF1B	ENSG00000105011	-1.85	0.00
ASIC1	ENSG00000110881	-2.58	0.01
ASPH	ENSG00000198363	2.36	0.00
ASPSCR1	ENSG00000169696	-1.52	0.01
ATIC	ENSG00000138363	1.28	0.04
ATP10D	ENSG00000145246	-1.82	0.01
ATP1A3	ENSG00000105409	-51.98	0.00
ATP6V1C1	ENSG00000155097	1.33	0.04
ATP6V1E1	ENSG00000131100	1.41	0.01
ATP6V1G1	ENSG00000136888	1.36	0.04
ATXN1	ENSG00000124788	1.48	0.03
AXL	ENSG00000167601	1.78	0.01
B4GALNT1	ENSG00000135454	2.64	0.00
B4GALNT4	ENSG00000182272	-1.61	0.01
B4GALT1	ENSG00000086062	1.3	0.01
BACE1	ENSG00000186318	-1.44	0.03
BAG2	ENSG00000112208	2.13	0.00
BAG3	ENSG00000151929	1.32	0.02
BAHCC1	ENSG00000266074	-2.03	0.02
BAIAP2-AS1	ENSG00000226137	-1.74	0.01
BAZ1A	ENSG00000198604	1.69	0.00
BBS2	ENSG00000125124	-1.30	0.03
BCAM	ENSG00000187244	-1.96	0.00
BCAR3	ENSG00000137936	1.49	0.02
BCAS3	ENSG00000141376	-1.67	0.00
BCL2L1	ENSG00000171552	1.39	0.04
BEX1	ENSG00000133169	-1.51	0.03
BEX3	ENSG00000166681	-1.56	0.01
BHMT	ENSG00000145692	-1.95	0.03
BHMT2	ENSG00000132840	3.61	0.00
BICC1	ENSG00000122870	-1.45	0.04
BICD1	ENSG00000151746	1.85	0.00
BICDL1	ENSG00000135127	1.58	0.03
BIRC7	ENSG00000101197	1.59	0.04
BMP6	ENSG00000153162	-15.03	0.03
BOK-AS1	ENSG00000234235	-3.63	0.00
BRD8	ENSG00000112983	-1.30	0.03
BRIX1	ENSG00000113460	1.67	0.03
BTBD11	ENSG00000151136	1.66	0.00
BTBD2	ENSG00000133243	-1.58	0.04
BTG2	ENSG00000159388	-1.44	0.03
BTG3	ENSG00000154640	1.56	0.05
BTN2A1	ENSG00000112763	2.24	0.03

BZW1P2	ENSG00000198406	1.72	0.03
BZW2	ENSG00000136261	1.35	0.01
C11orf95	ENSG00000188070	-2.03	0.00
C12orf29	ENSG00000133641	1.51	0.01
C12orf49	ENSG00000111412	-1.29	0.03
C14orf159	ENSG00000133943	-1.58	0.01
C14orf93	ENSG00000100802	-1.68	0.02
C16orf62	ENSG00000103544	-2.69	0.00
C16orf95	ENSG00000260456	-1.53	0.01
C17orf113	ENSG00000267221	-2.93	0.04
C17orf53	ENSG00000125319	-1.53	0.03
C19orf68	ENSG00000185453	-1.61	0.01
C1GALT1C1L	ENSG00000223658	-2.95	0.01
C1orf115	ENSG00000162817	-1.77	0.00
C1orf186	ENSG00000263961	-1.49	0.05
C1orf210	ENSG00000253313	-2.95	0.01
C1orf27	ENSG00000157181	1.79	0.02
C2	ENSG00000166278	-1.25	0.05
C2CD2L	ENSG00000172375	1.74	0.00
C2orf54	ENSG00000172478	-8.82	0.00
C3orf18	ENSG00000088543	-2.33	0.01
C4BPB	ENSG00000123843	-1.54	0.01
C4orf32	ENSG00000174749	1.9	0.01
C5orf30	ENSG00000181751	1.5	0.02
C5orf56	ENSG00000197536	1.49	0.03
C6orf132	ENSG00000188112	1.65	0.03
C7orf50	ENSG00000146540	1.34	0.05
C8orf4	ENSG00000176907	1.69	0.02
C9orf152	ENSG00000188959	-3.16	0.03
CA14	ENSG00000118298	-2.38	0.01
CA2	ENSG00000104267	-113.77	0.00
CABIN1	ENSG00000099991	-1.29	0.03
CABLES2	ENSG00000149679	-1.87	0.00
CACFD1	ENSG00000160325	-1.45	0.03
CACHD1	ENSG00000158966	-44.63	0.00
CACNA2D4	ENSG00000151062	1.52	0.01
CADM1	ENSG00000182985	-1.46	0.05
CAMK1	ENSG00000134072	-1.49	0.02
CAP1	ENSG00000131236	1.42	0.00
CAPN10-AS1	ENSG00000260942	-1.58	0.01
CAPN2	ENSG00000162909	1.5	0.00
CAPRIN2	ENSG00000110888	1.66	0.02
CARHSP1	ENSG00000153048	-2.04	0.00
CASC19	ENSG00000254166	2.07	0.01
CASKIN1	ENSG00000167971	-1.78	0.02
CASP8	ENSG00000064012	1.46	0.02

CASP9	ENSG00000132906	-1.64	0.00
CBFA2T2	ENSG00000078699	-1.68	0.00
CBS	ENSG00000160200	-1.60	0.00
CBSL	ENSG00000274276	-184.82	0.01
CBWD2	ENSG00000136682	1.44	0.05
CBX2	ENSG00000173894	-1.45	0.01
CBX7	ENSG00000100307	-2.22	0.04
CCDC113	ENSG00000103021	-5.39	0.03
CCDC170	ENSG00000120262	-1.83	0.05
CCDC183- AS1	ENSG00000228544	-2.00	0.01
CCDC25	ENSG00000147419	-1.59	0.04
CCDC28B	ENSG00000160050	-2.36	0.03
CCDC50	ENSG00000152492	1.44	0.02
CCDC66	ENSG00000180376	1.64	0.05
CCDC88C	ENSG00000015133	1.41	0.03
CCL14	ENSG00000276409	1.42	0.01
CCNB1	ENSG00000134057	-1.39	0.02
CCNB2	ENSG00000157456	-1.78	0.00
CCND2	ENSG00000118971	-10.34	0.00
CCPG1	ENSG00000260916	2.5	0.00
CCT2	ENSG00000166226	1.28	0.02
CCT6A	ENSG00000146731	1.33	0.01
CCT8	ENSG00000156261	1.34	0.02
CD109	ENSG00000156535	2.04	0.01
CD3EAP	ENSG00000117877	1.97	0.01
CD4	ENSG00000010610	-1.84	0.00
CD58	ENSG00000116815	1.81	0.00
CD7	ENSG00000173762	-1.80	0.04
CD74	ENSG00000019582	-1.57	0.00
CD83	ENSG00000112149	-1.46	0.04
CDC123	ENSG00000151465	1.33	0.03
CDC20	ENSG00000117399	-1.62	0.00
CDC25C	ENSG00000158402	-1.85	0.00
CDC42EP4	ENSG00000179604	-2.50	0.00
CDC73	ENSG00000134371	1.39	0.03
CDCA3	ENSG00000111665	-1.33	0.03
CDCA7L	ENSG00000164649	-1.53	0.02
CDCA8	ENSG00000134690	-1.55	0.00
CDH16	ENSG00000166589	-1.68	0.03
CDHR5	ENSG00000099834	-2.23	0.03
CDK16	ENSG00000102225	-1.38	0.04
CDKN1A	ENSG00000124762	1.63	0.01
CDKN2B	ENSG00000147883	3.21	0.00
CDKN2C	ENSG00000123080	-1.67	0.01
CDKN3	ENSG00000100526	-1.34	0.02

CDO1	ENSG00000129596	-2.23	0.00
CDR2	ENSG00000140743	1.38	0.00
CDT1	ENSG00000167513	-1.57	0.02
CEBPA	ENSG00000245848	-2.71	0.00
CEBPB	ENSG00000172216	2.51	0.05
CEBPZ	ENSG00000115816	1.43	0.03
CECR2	ENSG00000099954	-155.42	0.00
CELSR1	ENSG00000075275	-4.08	0.00
CEP131	ENSG00000141577	-1.52	0.01
CEP170B	ENSG00000099814	1.41	0.01
CES1	ENSG00000198848	1.65	0.00
CES1P1	ENSG00000228695	8.99	0.00
CGN	ENSG00000143375	-3.18	0.01
CGNL1	ENSG00000128849	-1.39	0.03
CHD3	ENSG00000170004	-1.57	0.00
CHMP1B	ENSG00000255112	1.3	0.01
CHMP4C	ENSG00000164695	1.52	0.02
CHORDC1	ENSG00000110172	1.78	0.01
CHPF2	ENSG00000033100	1.57	0.00
CHST13	ENSG00000180767	-1.66	0.03
CHST3	ENSG00000122863	-1.57	0.00
CHTF18	ENSG00000127586	-1.66	0.03
CIB2	ENSG00000136425	-1.92	0.02
CIT	ENSG00000122966	-1.52	0.01
CITED2	ENSG00000164442	-1.47	0.01
CKMT1A	ENSG00000223572	-4.20	0.00
CKMT1B	ENSG00000237289	-3.16	0.01
CLDN14	ENSG00000159261	-3.25	0.00
CLDN19	ENSG00000164007	-3.10	0.00
CLDN9	ENSG00000213937	-3.94	0.00
CLIC3	ENSG00000169583	-3.84	0.01
CLSTN3	ENSG00000139182	-1.34	0.05
CLU	ENSG00000120885	-1.44	0.03
CMAS	ENSG00000111726	1.37	0.03
CMTM6	ENSG00000091317	1.49	0.04
CNPY1	ENSG00000146910	-1.58	0.03
CNTD2	ENSG00000105219	-1.82	0.01
CNTNAP2	ENSG00000174469	-2.89	0.01
CNTNAP3	ENSG00000106714	1.96	0.03
CNTNAP3B	ENSG00000154529	4.69	0.00
CNTNAP3P2	ENSG00000276386	2.34	0.02
COA7	ENSG00000162377	1.24	0.03
COL2A1	ENSG00000139219	-3.29	0.00
COL4A2	ENSG00000134871	-5.13	0.00
COL4A6	ENSG00000197565	-1.38	0.02
COL6A1	ENSG00000142156	-1.41	0.01



COL6A2	ENSG00000142173	-3.03	0.00
COLEC12	ENSG00000158270	-6.50	0.03
COLGALT2	ENSG00000198756	1.57	0.00
COQ5	ENSG00000110871	-1.68	0.00
CORO2A	ENSG00000106789	-1.35	0.01
CORO2B	ENSG00000103647	2.74	0.00
COTL1	ENSG00000103187	1.55	0.01
CPEB4	ENSG00000113742	2.5	0.04
CPED1	ENSG00000106034	1.56	0.01
CPLX1	ENSG00000168993	1.96	0.02
CPLX2	ENSG00000145920	5	0.00
CPT1A	ENSG00000110090	1.71	0.00
CRAT	ENSG00000095321	-1.56	0.03
CREB3L4	ENSG00000143578	-1.73	0.01
CRIP1	ENSG00000213145	-2.11	0.01
CRIP2	ENSG00000182809	-2.20	0.00
CRYL1	ENSG00000165475	-1.57	0.02
CSF3R	ENSG00000119535	-1.46	0.02
CSGALNACT2	ENSG00000169826	2.5	0.00
CSRP1	ENSG00000159176	-1.62	0.03
CSRP2	ENSG00000175183	-1.66	0.03
CTDSP1	ENSG00000144579	-2.19	0.02
CTDSP2	ENSG00000175215	-1.23	0.05
CTNNBIP1	ENSG00000178585	-1.47	0.04
CTPS1	ENSG00000171793	1.37	0.01
CTSL	ENSG00000135047	1.45	0.02
CTSS	ENSG00000163131	-2.41	0.02
CTSV	ENSG00000136943	-1.85	0.00
CTTN	ENSG00000085733	1.53	0.01
CXCL8	ENSG00000169429	3.82	0.00
CYB561	ENSG00000008283	-2.36	0.00
CYCSP6	ENSG00000214429	1.55	0.02
CYP24A1	ENSG00000019186	3.37	0.00
CYP27A1	ENSG00000135929	-1.45	0.05
CYP2J2	ENSG00000134716	1.57	0.03
CYP2U1	ENSG00000155016	-1.49	0.02
CYP4F11	ENSG00000171903	3.13	0.00
CYP4F12	ENSG00000186204	-1.57	0.01
CYP4F3	ENSG00000186529	1.76	0.01
CYP8B1	ENSG00000180432	-1.83	0.01
CYR61	ENSG00000142871	2.03	0.01
CYTOR	ENSG00000222041	1.53	0.02
DAGLA	ENSG00000134780	1.51	0.01
DAPK1	ENSG00000196730	-1.46	0.01
DBI	ENSG00000155368	-1.37	0.04
DBNDD1	ENSG00000003249	1.49	0.03

DBP	ENSG00000105516	-2.68	0.01
DCAF13	ENSG00000164934	1.51	0.00
DCBLD1	ENSG00000164465	1.38	0.00
DCBLD2	ENSG00000057019	1.76	0.00
DCP1B	ENSG00000151065	-1.43	0.01
DDB2	ENSG00000134574	-1.93	0.01
DDIT3	ENSG00000175197	1.82	0.03
DDR2	ENSG00000162733	-18.13	0.00
DDX18	ENSG00000088205	1.51	0.01
DDX21	ENSG00000165732	1.84	0.02
DDX31	ENSG00000125485	1.34	0.03
DENND3	ENSG00000105339	-1.74	0.03
DENND4A	ENSG00000174485	1.65	0.05
DESI1	ENSG00000100418	1.38	0.01
DGAT1	ENSG00000185000	-1.80	0.01
DGAT2	ENSG00000062282	-1.80	0.02
DGKK	ENSG00000274588	-2.11	0.00
DHRS2	ENSG00000100867	-1.99	0.01
DHTKD1	ENSG00000181192	-1.68	0.01
DIMT1	ENSG00000086189	1.41	0.04
DIRC2	ENSG00000138463	1.35	0.03
DMTN	ENSG00000158856	-1.44	0.00
DNAJA2	ENSG00000069345	1.39	0.02
DNAJB11	ENSG00000090520	1.49	0.01
DNAJB5	ENSG00000137094	-2.06	0.02
DNAJB9	ENSG00000128590	1.97	0.00
DNAJC10	ENSG00000077232	1.65	0.02
DNAJC2	ENSG00000105821	1.48	0.03
DNAJC25	ENSG00000059769	1.5	0.03
DNAJC3	ENSG00000102580	1.59	0.03
DNASE2	ENSG00000105612	-1.43	0.04
DND1	ENSG00000256453	1.47	0.01
DOCK11	ENSG00000147251	-326.29	0.00
DOK1	ENSG00000115325	-3.05	0.02
DPEP1	ENSG00000015413	-2.25	0.00
DPYSL3	ENSG00000113657	-15.78	0.00
DPYSL5	ENSG00000157851	-146.02	0.00
DQX1	ENSG00000144045	-1.38	0.02
DRC7	ENSG00000159625	-6.36	0.01
DSC3	ENSG00000134762	-17.39	0.02
DSE	ENSG00000111817	-3.73	0.00
DTNB	ENSG00000138101	-1.54	0.02
DTX4	ENSG00000110042	-4.08	0.03
DUSP10	ENSG00000143507	-2.00	0.01
DUSP13	ENSG00000079393	5.63	0.00
DUSP4	ENSG00000120875	2.09	0.03

DUSP5	ENSG00000138166	2.19	0.00
DUSP6	ENSG00000139318	1.51	0.01
DUSP9	ENSG00000130829	-1.71	0.00
DUXAP9	ENSG00000225210	2.14	0.04
DYNC2H1	ENSG00000187240	-98.36	0.01
DYSF	ENSG00000135636	-6.23	0.00
EBF4	ENSG00000088881	-3.78	0.01
EBNA1BP2	ENSG00000117395	1.56	0.01
EDN1	ENSG00000078401	2.24	0.01
EEF1A2	ENSG00000101210	-2.93	0.00
EEF1AKMT3	ENSG00000123427	1.74	0.00
EFCAB12	ENSG00000172771	-2.36	0.02
EFNB1	ENSG00000090776	-1.61	0.00
EGLN3	ENSG00000129521	1.99	0.01
EGR1	ENSG00000120738	2.29	0.00
EHMT2	ENSG00000204371	-1.64	0.01
EID3	ENSG00000255150	39.7	0.00
EIF2S1	ENSG00000134001	1.6	0.00
EIF2S2	ENSG00000125977	1.31	0.04
EIF2S2P4	ENSG00000128692	1.5	0.04
ELF3	ENSG00000163435	-1.35	0.04
ELOA	ENSG00000011007	1.44	0.01
ELOVL4	ENSG00000118402	-27.10	0.02
EMC7	ENSG00000134153	1.41	0.02
EMILIN3	ENSG00000183798	-6.50	0.01
EML1	ENSG00000066629	-4.14	0.00
EMP2	ENSG00000213853	-1.74	0.00
ENO3	ENSG00000108515	-2.25	0.00
ENPP1	ENSG00000197594	1.73	0.01
ENPP2	ENSG00000136960	-3.92	0.00
EP300-AS1	ENSG00000231993	-2.11	0.05
EPB41L3	ENSG00000082397	-168.90	0.00
EPB41L5	ENSG00000115109	1.49	0.00
EPHA1	ENSG00000146904	-1.51	0.02
EPHA4	ENSG00000116106	-198.09	0.00
EPHB4	ENSG00000196411	-1.61	0.00
EPHX1	ENSG00000143819	2.03	0.00
EPHX2	ENSG00000120915	-1.99	0.00
EPO	ENSG00000130427	-2.25	0.00
EPOR	ENSG00000187266	-1.87	0.00
EPS8L3	ENSG00000198758	1.3	0.03
ERBB2	ENSG00000141736	-2.06	0.00
ERCC1	ENSG00000012061	1.39	0.03
ERN1	ENSG00000178607	2.01	0.00
ERP27	ENSG00000139055	-2.83	0.00
ERRFI1	ENSG00000116285	2.04	0.00

ESAM	ENSG00000149564	2.12	0.02
ESPL1	ENSG00000135476	-1.54	0.02
ETNK2	ENSG00000143845	-2.51	0.00
ETS2	ENSG00000157557	1.3	0.01
EVC	ENSG00000072840	-1.54	0.02
EVL	ENSG00000196405	-1.47	0.02
F2RL1	ENSG00000164251	2.34	0.00
F3	ENSG00000117525	1.62	0.03
F7	ENSG00000057593	-1.84	0.03
FABP1	ENSG00000163586	-1.96	0.00
FABP5	ENSG00000164687	1.67	0.00
FADS1	ENSG00000149485	-1.29	0.03
FAHD2A	ENSG00000115042	-1.44	0.02
FAM102A	ENSG00000167106	-2.17	0.00
FAM102B	ENSG00000162636	-2.45	0.01
FAM107B	ENSG00000065809	1.46	0.02
FAM109A	ENSG00000198324	1.49	0.01
FAM111A	ENSG00000166801	-1.58	0.01
FAM117A	ENSG00000121104	-1.62	0.00
FAM129A	ENSG00000135842	-34.06	0.00
FAM151A	ENSG00000162391	-4.23	0.01
FAM171A2	ENSG00000161682	-2.00	0.01
FAM171B	ENSG00000144369	-30.91	0.01
FAM20C	ENSG00000177706	-1.67	0.01
FAM222A	ENSG00000139438	-1.97	0.00
FAM3B	ENSG00000183844	-1.66	0.00
FAM43B	ENSG00000183114	-1.80	0.02
FAM46C	ENSG00000183508	-5.66	0.05
FAM69A	ENSG00000154511	1.54	0.02
FAM69B	ENSG00000165716	-2.55	0.00
FAM83D	ENSG00000101447	-1.44	0.01
FAM98A	ENSG00000119812	1.54	0.04
FARSB	ENSG00000116120	1.31	0.01
FAT3	ENSG00000165323	-209.38	0.00
FAXDC2	ENSG00000170271	-1.69	0.02
FBLN5	ENSG00000140092	-2.53	0.05
FBN1	ENSG00000166147	-3.97	0.00
FBN2	ENSG00000138829	-136.24	0.00
FBXL16	ENSG00000127585	-1.57	0.05
FBXO30	ENSG00000118496	1.72	0.05
FBXO6	ENSG00000116663	-1.89	0.02
FDFT1	ENSG00000079459	-1.28	0.02
FECH	ENSG00000066926	1.54	0.02
FERMT1	ENSG00000101311	1.57	0.04
FGB	ENSG00000171564	-1.42	0.02
FGD3	ENSG00000127084	-1.83	0.04

FGFR2	ENSG00000066468	-5.98	0.00
FGFR3	ENSG00000068078	-1.67	0.00
FHL1	ENSG00000022267	-515.56	0.00
FHL3	ENSG00000183386	1.68	0.01
FICD	ENSG00000198855	1.44	0.04
FILIP1L	ENSG00000168386	2.45	0.00
FKBP4	ENSG00000004478	1.4	0.01
FKBP9	ENSG00000122642	1.46	0.02
FLNC	ENSG00000128591	-205.07	0.00
FLRT3	ENSG00000125848	1.7	0.02
FLT4	ENSG00000037280	-80.45	0.00
FLVCR1	ENSG00000162769	-2.27	0.02
FLVCR1-AS1	ENSG00000198468	-1.73	0.00
FN3K	ENSG00000167363	-1.59	0.01
FNDC10	ENSG00000228594	-1.46	0.03
FOPNL	ENSG00000133393	1.63	0.03
FOSL1	ENSG00000175592	2.86	0.00
FOXC1	ENSG00000054598	-2.03	0.01
FOXM1	ENSG00000111206	-1.44	0.02
FOXO4	ENSG00000184481	-1.56	0.03
FOXP4	ENSG00000137166	-1.48	0.00
FOXQ1	ENSG00000164379	1.75	0.00
FSCN1	ENSG00000075618	-1.80	0.01
FST	ENSG00000134363	1.99	0.00
FSTL1	ENSG00000163430	-74.03	0.01
FSTL4	ENSG00000053108	-2.38	0.01
FTH1P11	ENSG00000237264	1.82	0.04
FTH1P2	ENSG00000234975	1.75	0.01
FTL	ENSG00000087086	2.36	0.00
FTLP3	ENSG00000226608	2.64	0.00
FXYD1	ENSG00000266964	-1.49	0.03
FZD1	ENSG00000157240	-2.11	0.00
FZR1	ENSG00000105325	-1.65	0.01
GAB2	ENSG00000033327	1.37	0.03
GABRE	ENSG00000102287	2.41	0.00
GADD45B	ENSG00000099860	1.85	0.04
GALK1	ENSG00000108479	-1.93	0.01
GALM	ENSG00000143891	-1.47	0.01
GALNT11	ENSG00000178234	-1.39	0.01
GALNT16	ENSG00000100626	-3.32	0.01
GALNT6	ENSG00000139629	-2.68	0.00
GALT	ENSG00000213930	-1.65	0.02
GANC	ENSG00000214013	-1.31	0.03
GAR1	ENSG00000109534	1.47	0.03
GAREM1	ENSG00000141441	1.59	0.03
GAREM2	ENSG00000157833	-2.04	0.00

GART	ENSG00000159131	1.36	0.01
GAS2	ENSG00000148935	1.48	0.01
GAS7	ENSG00000007237	-2.10	0.00
GATA6	ENSG00000141448	-1.78	0.01
GATAD2A	ENSG00000167491	1.22	0.02
GBE1	ENSG00000114480	1.62	0.01
GCHFR	ENSG00000137880	-1.40	0.03
GCKR	ENSG00000084734	2.39	0.00
GCLC	ENSG00000001084	4.17	0.00
GCLM	ENSG00000023909	5.99	0.00
GCNT1	ENSG00000187210	-2.17	0.03
GDF11	ENSG00000135414	-1.92	0.00
GDF15	ENSG00000130513	2.45	0.00
GDF7	ENSG00000143869	-2.31	0.00
GDPD3	ENSG00000102886	-1.53	0.03
GDPD5	ENSG00000158555	-2.33	0.00
GFPT2	ENSG00000131459	-17.63	0.01
GGT5	ENSG00000099998	2.58	0.00
GHITM	ENSG00000165678	1.48	0.00
GJA1	ENSG00000152661	-37.79	0.00
GJC2	ENSG00000198835	-2.62	0.00
GK	ENSG00000198814	1.47	0.03
GLA	ENSG00000102393	1.72	0.00
GLB1L2	ENSG00000149328	-1.79	0.01
GLDC	ENSG00000178445	-1.41	0.00
GLIPR1	ENSG00000139278	2.39	0.00
GLIS2	ENSG00000126603	-3.34	0.03
GLRX	ENSG00000173221	1.33	0.05
GLRX3	ENSG00000108010	1.59	0.01
GLS	ENSG00000115419	1.66	0.04
GLT8D1	ENSG00000016864	-1.42	0.01
GLUD1	ENSG00000148672	-1.39	0.00
GLYCTK	ENSG00000168237	-1.89	0.01
GM2A	ENSG00000196743	-1.35	0.04
GNAI2	ENSG00000114353	-1.52	0.05
GNG12	ENSG00000172380	-13.00	0.00
GNG7	ENSG00000176533	-2.28	0.00
GNL3	ENSG00000163938	1.3	0.04
GNMT	ENSG00000124713	-7.01	0.00
GNPDA1	ENSG00000113552	1.47	0.01
GNS	ENSG00000135677	1.29	0.03
GOLM1	ENSG00000135052	-1.92	0.02
GPAT3	ENSG00000138678	5.51	0.00
GPC4	ENSG00000076716	-107.63	0.00
GPCPD1	ENSG00000125772	1.53	0.03
GPD1	ENSG00000167588	1.65	0.00

GPER1	ENSG00000164850	-1.71	0.02
GPM6B	ENSG00000046653	-5.39	0.02
GPNMB	ENSG00000136235	2.29	0.02
GPR180	ENSG00000152749	-216.77	0.00
GPT	ENSG00000167701	-2.13	0.02
GPX2	ENSG00000176153	1.99	0.04
GRAP	ENSG00000154016	2.27	0.02
GRB7	ENSG00000141738	-1.99	0.00
GREB1	ENSG00000196208	-1.40	0.04
GREB1L	ENSG00000141449	-16.68	0.00
GRSF1	ENSG00000132463	1.21	0.04
GSK3A	ENSG00000105723	-1.42	0.05
GSKIP	ENSG00000100744	1.71	0.00
GSN	ENSG00000148180	-1.61	0.01
GSPT1	ENSG00000103342	1.32	0.05
GSR	ENSG00000104687	2.24	0.00
GSTA7P	ENSG00000237674	1.92	0.03
GSTM4	ENSG00000168765	-1.46	0.03
GSTO1	ENSG00000148834	1.5	0.01
GTF2IP20	ENSG00000272645	-1.52	0.04
GTPBP4	ENSG00000107937	1.39	0.00
H1FX	ENSG00000184897	-1.67	0.01
H2AFJ	ENSG00000246705	-1.39	0.05
H2AFV	ENSG00000105968	-1.88	0.00
H2AFY2	ENSG00000099284	-1.67	0.00
HAAO	ENSG00000162882	-1.92	0.01
HADH	ENSG00000138796	-1.48	0.01
HAP1	ENSG00000173805	-12.21	0.02
HBEGF	ENSG00000113070	1.45	0.04
HCCS	ENSG00000004961	1.29	0.03
HDAC5	ENSG00000108840	-2.50	0.00
HDAC6	ENSG00000094631	-1.51	0.00
HDDC2	ENSG00000111906	1.45	0.04
HEPACAM	ENSG00000165478	-1.92	0.03
HEXB	ENSG00000049860	1.38	0.03
HEXDC	ENSG00000169660	-1.65	0.01
HGD	ENSG00000113924	1.39	0.00
HHAT	ENSG00000054392	-1.67	0.00
HIC1	ENSG00000177374	14.77	0.00
HIST1H1C	ENSG00000187837	-2.81	0.04
HIST1H2AI	ENSG00000196747	-7.84	0.00
HIST1H2AJ	ENSG00000276368	-6.54	0.00
HIST1H2BC	ENSG00000180596	-4.99	0.00
HIST1H2BD	ENSG00000158373	-8.17	0.00
HIST1H2BJ	ENSG00000124635	-127.12	0.03
HIST1H2BK	ENSG00000197903	-5.66	0.00

HIST1H2BL	ENSG00000185130	-9.13	0.01
HIST1H2BN	ENSG00000233822	-2.53	0.03
HIST1H2BO	ENSG00000274641	-16.68	0.01
HIST1H3D	ENSG00000282988	-9.38	0.00
HIST1H3J	ENSG00000197153	-12.82	0.01
HIST1H4J	ENSG00000197238	-3.16	0.00
HIST1H4K	ENSG00000273542	-3.01	0.00
HIST2H2AA3	ENSG00000203812	-3.34	0.01
HIST2H2AA4	ENSG00000272196	-3.36	0.01
HIST2H2AC	ENSG00000184260	-6.45	0.00
HIST2H2BF	ENSG00000203814	-3.81	0.00
HIST2H4B	ENSG00000270276	-2.95	0.01
HIST3H2BB	ENSG00000196890	-145.01	0.01
HKDC1	ENSG00000156510	1.89	0.00
HLA-F-AS1	ENSG00000214922	-2.19	0.01
HLCS	ENSG00000159267	1.28	0.04
HMGA1	ENSG00000137309	1.89	0.00
HMGA1P2	ENSG00000248641	2.14	0.02
HMGB3	ENSG00000029993	-1.42	0.02
HMGCS2	ENSG00000134240	-10.13	0.01
HNF1B	ENSG00000275410	-1.34	0.04
HNF4A-AS1	ENSG00000229005	-1.46	0.04
HNRNPAB	ENSG00000197451	1.38	0.00
HOOK2	ENSG00000095066	-1.40	0.04
HOXA3	ENSG00000105997	-1.59	0.01
HOXB9	ENSG00000170689	-184.82	0.00
HOXC10	ENSG00000180818	-3.05	0.00
HOXD1	ENSG00000128645	-2.58	0.00
HPN	ENSG00000105707	-1.43	0.02
HPRT1	ENSG00000165704	1.42	0.01
HPX	ENSG00000110169	-3.16	0.00
HS6ST1P1	ENSG00000187952	-2.73	0.00
HS6ST2	ENSG00000171004	-162.02	0.00
HSP90AB1	ENSG00000096384	1.2	0.03
HSPA4	ENSG00000170606	1.3	0.02
HSPA5	ENSG00000044574	1.33	0.00
HSPA9	ENSG00000113013	1.26	0.03
HSPBAP1	ENSG00000169087	1.57	0.05
HSPH1	ENSG00000120694	1.77	0.00
HYOU1	ENSG00000149428	1.3	0.03
IBA57	ENSG00000181873	-1.39	0.01
ICAM1	ENSG00000090339	1.65	0.01
ICAM4	ENSG00000105371	-2.66	0.01
IDE	ENSG00000119912	1.49	0.03
IDH1	ENSG00000138413	-1.35	0.01
IDH2	ENSG00000182054	-1.44	0.03



IER3	ENSG00000137331	2.58	0.00
IFNGR1	ENSG00000027697	1.37	0.03
IFRD1	ENSG00000006652	1.68	0.00
IFT122	ENSG00000163913	-1.57	0.03
IFT140	ENSG00000187535	-1.47	0.01
IFT46	ENSG00000118096	-2.16	0.01
IFT88	ENSG00000032742	1.63	0.01
IGDCC3	ENSG00000174498	-1.62	0.00
IGF2	ENSG00000167244	-1.73	0.00
IGF2-AS	ENSG00000099869	-3.94	0.00
IGF2R	ENSG00000197081	1.5	0.03
IGFBP1	ENSG00000146678	3.33	0.02
IGFBP3	ENSG00000146674	2.33	0.00
IGFBP4	ENSG00000141753	1.55	0.02
IGSF3	ENSG00000143061	-3.18	0.01
IKBK	ENSG00000269335	2.98	0.00
IL11	ENSG00000095752	2.74	0.00
IL17RE	ENSG00000163701	-1.61	0.01
IL18	ENSG00000150782	2.56	0.01
IL22RA1	ENSG00000142677	-1.77	0.00
IL27RA	ENSG00000104998	1.29	0.04
IL2RG	ENSG00000147168	3.05	0.02
IL6R	ENSG00000160712	6.36	0.00
INHA	ENSG00000123999	-2.01	0.00
INPP5J	ENSG00000185133	-3.10	0.01
INPPL1	ENSG00000165458	-1.47	0.02
INSIG1	ENSG00000186480	-63.12	0.01
INTS12	ENSG00000138785	1.32	0.02
INTS13	ENSG00000064102	1.42	0.03
IP6K2	ENSG00000068745	-1.41	0.03
IPO9	ENSG00000198700	-1.24	0.04
IQCB1	ENSG00000173226	1.31	0.04
IQCE	ENSG00000106012	-1.71	0.01
IQGAP3	ENSG00000183856	-1.71	0.01
IRAK2	ENSG00000134070	1.33	0.01
IRF1	ENSG00000125347	-1.48	0.04
IRX3	ENSG00000177508	-1.93	0.00
ISCA1	ENSG00000135070	1.59	0.02
ISYNA1	ENSG00000105655	-1.65	0.02
ITFG1	ENSG00000129636	1.24	0.04
ITGA1	ENSG00000213949	2.08	0.02
ITGA10	ENSG00000143127	1.39	0.04
ITGA5	ENSG00000161638	-6.77	0.00
ITGAL	ENSG00000005844	-3.18	0.02
ITGAV	ENSG00000138448	1.93	0.04
ITGB1	ENSG00000150093	1.67	0.02

ITGB2	ENSG00000160255	-1.47	0.03
ITGB4	ENSG00000132470	-1.57	0.02
ITIH1	ENSG00000055957	-2.31	0.00
ITIH4	ENSG00000055955	-1.46	0.02
ITIH5	ENSG00000123243	-1.42	0.02
ITPRIP	ENSG00000148841	1.63	0.00
JAG1	ENSG00000101384	3.37	0.00
JHDM1D-AS1	ENSG00000260231	1.36	0.03
JMJD7	ENSG00000243789	-1.36	0.03
JPX	ENSG00000225470	-1.53	0.02
JUP	ENSG00000173801	-2.00	0.01
KALRN	ENSG00000160145	1.56	0.00
KANK2	ENSG00000197256	-1.55	0.01
KANK4	ENSG00000132854	-3.18	0.00
KAZALD1	ENSG00000107821	-1.74	0.00
KCNC4	ENSG00000116396	-2.28	0.04
KCNJ11	ENSG00000187486	-3.05	0.00
KCTD1	ENSG00000134504	-1.56	0.02
KCTD12	ENSG00000178695	-40.79	0.01
KCTD21-AS1	ENSG00000246174	-1.91	0.03
KCTD3	ENSG00000136636	-1.64	0.05
KCTD9	ENSG00000104756	1.68	0.01
KDSR	ENSG00000119537	1.43	0.02
KIAA0922	ENSG00000121210	1.33	0.04
KIAA1161	ENSG00000164976	-1.36	0.03
KIF12	ENSG00000136883	-2.19	0.01
KIF18A	ENSG00000121621	-1.44	0.02
KIF1A	ENSG00000130294	-63.56	0.01
KIF20A	ENSG00000112984	-1.66	0.01
KIF22	ENSG00000079616	-1.46	0.01
KIF2C	ENSG00000142945	-1.39	0.01
KIF7	ENSG00000166813	-1.43	0.03
KLB	ENSG00000134962	-2.10	0.00
KLC4	ENSG00000137171	-1.82	0.00
KLF10	ENSG00000155090	1.55	0.02
KLF11	ENSG00000172059	-1.73	0.02
KLF9	ENSG00000119138	1.69	0.01
KLHDC2	ENSG00000165516	-1.29	0.03
KLHDC7A	ENSG00000179023	-1.92	0.02
KLHL13	ENSG00000003096	-3.71	0.00
KLHL14	ENSG00000197705	-1.66	0.00
KLHL25	ENSG00000183655	-1.53	0.03
KLHL5	ENSG00000109790	1.35	0.03
KMT5C	ENSG00000133247	-1.73	0.05
KPNA1	ENSG00000114030	1.45	0.03
KPNA4	ENSG00000186432	1.45	0.03

KYNU	ENSG00000115919	1.82	0.00
L3MBTL4	ENSG00000154655	1.36	0.03
LAMA3	ENSG00000053747	-2.71	0.02
LAMA4	ENSG00000112769	-136.24	0.01
LARGE2	ENSG00000165905	-1.73	0.00
LCAT	ENSG00000213398	-1.38	0.05
LCN15	ENSG00000177984	-2.30	0.01
LDHD	ENSG00000166816	-2.22	0.00
LGALS2	ENSG00000100079	-1.82	0.03
LGALS3	ENSG00000131981	1.98	0.00
LGALS8	ENSG00000116977	1.52	0.00
LIF	ENSG00000128342	3.1	0.01
LIG1	ENSG00000105486	-1.46	0.01
LINC00346	ENSG00000255874	5.48	0.00
LINC00659	ENSG00000228705	2.48	0.02
LINC00846	ENSG00000186842	1.32	0.03
LINC00870	ENSG00000243083	-2.53	0.00
LINC00941	ENSG00000235884	5.15	0.00
LINC01124	ENSG00000222033	-1.45	0.01
LINC01184	ENSG00000245937	1.69	0.04
LINC01337	ENSG00000251221	-3.01	0.04
LINC01484	ENSG00000253686	3.57	0.04
LINC01564	ENSG00000235899	14.73	0.00
LINC01770	ENSG00000225285	-1.68	0.00
LINC02313	ENSG00000258474	1.55	0.03
LINC02413	ENSG00000257345	-7.01	0.00
LINGO4	ENSG00000213171	-2.13	0.02
LIVAR	ENSG00000266304	2.35	0.00
LMAN1	ENSG00000074695	1.61	0.05
LMF1	ENSG00000103227	-1.51	0.04
LMNTD2	ENSG00000185522	1.86	0.02
LOXL3	ENSG00000115318	-2.57	0.02
LPCAT3	ENSG00000111684	-1.34	0.02
LRCH1	ENSG00000136141	1.63	0.00
LRFN4	ENSG00000173621	1.72	0.01
LRP8	ENSG00000157193	2.04	0.00
LRPPRC	ENSG00000138095	1.32	0.03
LRRC1	ENSG00000137269	1.49	0.00
LRRC3	ENSG00000160233	-1.68	0.00
LRRC49	ENSG00000137821	-1.88	0.05
LRRC75B	ENSG00000178026	-1.85	0.01
LSG1	ENSG00000041802	1.32	0.01
LSM14B	ENSG00000149657	-1.38	0.01
LSS	ENSG00000160285	-1.61	0.01
LTBP4	ENSG00000090006	-2.25	0.00
LTBR	ENSG00000111321	1.62	0.00

LUCAT1	ENSG00000248323	32.91	0.00
LURAP1L	ENSG00000153714	1.82	0.00
LYAR	ENSG00000145220	1.4	0.01
LZTS2	ENSG00000107816	-1.61	0.00
MAB21L3	ENSG00000173212	2.39	0.01
MAFF	ENSG00000185022	1.51	0.00
MAG	ENSG00000105695	6.88	0.00
MAGED2	ENSG00000102316	-1.44	0.01
MAGED4	ENSG00000154545	-1.59	0.02
MAK16	ENSG00000198042	1.71	0.00
MAP2K1	ENSG00000169032	1.41	0.00
MAP2K6	ENSG00000108984	-2.13	0.00
MAP3K14	ENSG00000006062	1.64	0.01
MAP3K21	ENSG00000143674	-206.50	0.00
MAP3K3	ENSG00000198909	-1.34	0.05
MAP4K4	ENSG00000071054	-1.41	0.00
MAPK13	ENSG00000156711	1.41	0.00
MAPK6	ENSG00000069956	1.63	0.05
MAPRE1	ENSG00000101367	1.25	0.05
MAPT	ENSG00000186868	-1.71	0.05
MARC1	ENSG00000186205	-132.51	0.03
MARC3	ENSG00000173926	-1.52	0.02
MARVELD1	ENSG00000155254	-1.38	0.00
MARVELD3	ENSG00000140832	-1.80	0.02
MAST3	ENSG00000099308	-222.86	0.02
MATN3	ENSG00000132031	-1.87	0.00
MBOAT2	ENSG00000143797	-1.69	0.00
MCC	ENSG00000171444	-1.35	0.02
MCM2	ENSG00000073111	-1.36	0.01
MCM3	ENSG00000112118	1.66	0.03
MCM7	ENSG00000166508	1.45	0.05
ME2	ENSG00000082212	-1.72	0.00
MEAF6	ENSG00000163875	-1.75	0.03
MEIKIN	ENSG00000239642	1.8	0.04
METTL7A	ENSG00000185432	1.4	0.04
METTL7B	ENSG00000170439	-1.48	0.00
METTL8	ENSG00000123600	-1.72	0.02
MEX3A	ENSG00000254726	-3.81	0.03
MEX3B	ENSG00000183496	-1.69	0.04
MFAP2	ENSG00000117122	1.5	0.00
MFGE8	ENSG00000140545	-1.96	0.03
MFSD1	ENSG00000118855	2.49	0.02
MFSD2B	ENSG00000205639	1.62	0.04
MGST1	ENSG00000008394	-1.47	0.00
MIA2	ENSG00000150526	2.46	0.03
MINDY1	ENSG00000143409	2.65	0.03

MIR29A	ENSG00000284032	-1.55	0.01
MIR4435-2HG	ENSG00000172965	-2.53	0.00
MIS18A	ENSG00000159055	-1.83	0.01
MIXL1	ENSG00000185155	1.54	0.00
MKI67	ENSG00000148773	1.96	0.03
MKLN1	ENSG00000128585	-1.74	0.01
MKLN1-AS	ENSG00000236753	-1.28	0.01
MKNK2	ENSG00000099875	1.81	0.00
MKS1	ENSG00000011143	-1.57	0.05
MLH3	ENSG00000119684	3.23	0.03
MLXIPL	ENSG00000009950	-1.33	0.02
MLYCD	ENSG00000103150	4.6	0.00
MMAB	ENSG00000139428	1.32	0.05
MMP10	ENSG00000166670	1.56	0.02
MOGS	ENSG00000115275	1.39	0.03
MORC4	ENSG00000133131	-1.52	0.00
MOSPD1	ENSG00000101928	1.33	0.03
MOV10	ENSG00000155363	1.64	0.00
MPHOSPH6	ENSG00000135698	-1.55	0.04
MPP6	ENSG00000105926	-1.71	0.03
MPP7	ENSG00000150054	1.68	0.05
MPZ	ENSG00000158887	-1.75	0.02
MPZL3	ENSG00000160588	-1.69	0.00
MROH6	ENSG00000204839	1.42	0.05
MRPL43	ENSG00000055950	1.71	0.00
MRPS10	ENSG00000048544	-1.41	0.03
MRPS35	ENSG00000061794	-3.56	0.01
MSH5	ENSG00000204410	-98.36	0.03
MSI1	ENSG00000135097	-1.35	0.01
MSN	ENSG00000147065	-2.13	0.01
MTCL1	ENSG00000168502	1.99	0.00
MTHFD1L	ENSG00000120254	1.32	0.01
MTMR10	ENSG00000166912	1.77	0.03
MTMR2	ENSG00000087053	1.52	0.02
MTRF1L	ENSG00000112031	1.71	0.03
MUTYH	ENSG00000132781	-1.47	0.04
MVB12B	ENSG00000196814	-1.41	0.01
MX2	ENSG00000183486	1.55	0.03
MYO10	ENSG00000145555	-1.69	0.00
MYO15B	ENSG00000266714	1.46	0.01
MYO1G	ENSG00000136286	-2.39	0.00
NAA20	ENSG00000173418	1.42	0.01
NAA35	ENSG00000135040	1.3	0.04
NAA40	ENSG00000110583	-1.32	0.04
NAAA	ENSG00000138744	1.31	0.03

NAALADL1	ENSG00000168060	-1.83	0.01
NABP1	ENSG00000173559	2.41	0.01
NAF1	ENSG00000145414	1.74	0.01
NAGS	ENSG00000161653	1.78	0.03
NAT8L	ENSG00000185818	-1.92	0.01
NATD1	ENSG00000274180	-1.52	0.03
NBPF2P	ENSG00000227001	-2.08	0.04
NCAPD2	ENSG00000010292	-1.43	0.00
NCF2	ENSG00000116701	10.71	0.00
NCL	ENSG00000115053	1.33	0.02
NDRG4	ENSG00000103034	-2.14	0.01
NDUF4F4	ENSG00000123545	1.79	0.00
NECAB3	ENSG00000125967	1.39	0.05
NECAP1	ENSG00000089818	1.7	0.00
NEK2	ENSG00000117650	-1.73	0.00
NELL2	ENSG00000184613	-154.34	0.00
NES	ENSG00000132688	1.56	0.00
NEURL1B	ENSG00000214357	-4.79	0.01
NFE2L3	ENSG00000050344	1.53	0.00
NFIC	ENSG00000141905	1.38	0.04
NFYC	ENSG00000066136	-1.37	0.02
NID2	ENSG00000087303	-115.36	0.00
NIFK	ENSG00000155438	1.75	0.01
NIPA2	ENSG00000140157	1.38	0.02
NIT2	ENSG00000114021	1.37	0.05
NKD1	ENSG00000140807	-1.25	0.03
NLGN2	ENSG00000169992	-1.92	0.01
NLN	ENSG00000123213	1.66	0.01
NMRAL2P	ENSG00000171658	5.64	0.02
NMRK1	ENSG00000106733	-1.77	0.01
NNT	ENSG00000112992	-1.36	0.04
NOL10	ENSG00000115761	1.44	0.03
NOLC1	ENSG00000166197	1.59	0.00
NOP14-AS1	ENSG00000249673	2.59	0.05
NOP2	ENSG00000111641	1.41	0.00
NOTCH1	ENSG00000148400	-4.26	0.00
NOTCH3	ENSG00000074181	-2.22	0.04
NPAS1	ENSG00000130751	2.77	0.00
NPHP4	ENSG00000131697	-1.66	0.00
NPNT	ENSG00000168743	-2.53	0.01
NPTXR	ENSG00000221890	-2.00	0.00
NQO1	ENSG00000181019	3.26	0.00
NR2C2AP	ENSG00000184162	1.77	0.00
NR2F2	ENSG00000185551	-1.51	0.00
NR2F6	ENSG00000160113	-1.69	0.04
NREP	ENSG00000134986	-2.28	0.00

NRM	ENSG00000137404	-1.96	0.01
NRP2	ENSG00000118257	-2.23	0.01
NRTN	ENSG00000171119	-2.16	0.02
NSD1	ENSG00000165671	-186.11	0.01
NSMCE4A	ENSG00000107672	-1.29	0.04
NSUN2	ENSG00000037474	1.62	0.00
NTN4	ENSG00000074527	-1.80	0.01
NUDCD1	ENSG00000120526	1.42	0.02
NUDT1	ENSG00000106268	-1.61	0.05
NUDT8	ENSG00000167799	-1.89	0.03
NUSAP1	ENSG00000137804	-1.49	0.02
NUTM2A- AS1	ENSG00000223482	1.48	0.02
NXPE3	ENSG00000144815	1.91	0.01
NYNRIN	ENSG00000205978	-4.41	0.00
OBSL1	ENSG00000124006	-1.52	0.03
ODAM	ENSG00000109205	-2.03	0.03
ODC1	ENSG00000115758	1.83	0.00
OGDHL	ENSG00000197444	-1.52	0.04
OIT3	ENSG00000138315	-1.62	0.01
OLAH	ENSG00000152463	8.77	0.01
OLFML1	ENSG00000183801	-2.93	0.01
OLFML3	ENSG00000116774	-1.99	0.01
OSBP2	ENSG00000184792	-1.84	0.01
OSBPL3	ENSG00000070882	1.37	0.04
OSGIN2	ENSG00000164823	1.63	0.04
OSMR	ENSG00000145623	2.01	0.00
OTUB2	ENSG00000089723	1.81	0.01
OTX1	ENSG00000115507	-1.65	0.02
P2RY2	ENSG00000175591	-1.67	0.04
P2RY6	ENSG00000171631	9.26	0.00
P2RY8	ENSG00000182162	-1.91	0.00
PAG1	ENSG00000076641	-9.32	0.00
PAK1	ENSG00000149269	-1.80	0.05
PAK1IP1	ENSG00000111845	1.58	0.00
PAK4	ENSG00000130669	-1.79	0.00
PALLD	ENSG00000129116	2.93	0.00
PALM3	ENSG00000187867	-2.38	0.01
PANK1	ENSG00000152782	-1.40	0.02
PANX2	ENSG00000073150	2.68	0.00
PAPSS1	ENSG00000138801	-1.48	0.00
PAQR5	ENSG00000137819	2.38	0.00
PAQR8	ENSG00000170915	-1.49	0.00
PARD3	ENSG00000148498	1.29	0.02
PARP10	ENSG00000178685	-1.52	0.03
PART1	ENSG00000152931	1.44	0.03

PBK	ENSG00000168078	-1.58	0.02
PBLD	ENSG00000108187	-1.57	0.04
PBX1	ENSG00000185630	-233.94	0.00
PBXIP1	ENSG00000163346	-1.91	0.00
PCDH9	ENSG00000184226	-195.36	0.00
PCIF1	ENSG00000100982	-1.31	0.04
PCNX2	ENSG00000135749	-163.14	0.00
PCOLCE	ENSG00000106333	-2.11	0.00
PCSK4	ENSG00000115257	-2.01	0.00
PCSK9	ENSG00000169174	-1.55	0.01
PCTP	ENSG00000141179	-1.33	0.01
PCYT1A	ENSG00000161217	1.53	0.02
PCYT1B	ENSG00000102230	-1.72	0.01
PCYT2	ENSG00000185813	-1.45	0.03
PDCD1	ENSG00000188389	12.81	0.02
PDCD11	ENSG00000148843	1.3	0.03
PDCD4-AS1	ENSG00000203497	-2.28	0.00
PDGFB	ENSG00000100311	1.4	0.05
PDLIM5	ENSG00000163110	1.29	0.04
PDZD7	ENSG00000186862	-3.16	0.01
PDZK1	ENSG00000174827	-1.54	0.02
PEBP1	ENSG00000089220	-1.35	0.03
PEG13	ENSG00000282164	-1.52	0.01
PELI2	ENSG00000139946	-24.76	0.00
PER1	ENSG00000179094	-1.30	0.04
PEX11A	ENSG00000166821	-1.38	0.03
PEX3	ENSG00000034693	1.3	0.04
PEX6	ENSG00000124587	-1.52	0.04
PFDN4	ENSG00000101132	1.5	0.04
PFKM	ENSG00000152556	-3.29	0.00
PFKP	ENSG00000067057	1.51	0.03
PGC	ENSG00000096088	-2.19	0.00
PGLYRP2	ENSG00000161031	-4.99	0.00
PGM1	ENSG00000079739	-1.51	0.00
PHC2	ENSG00000134686	1.33	0.03
PHGDH	ENSG00000092621	-1.71	0.00
PHLDA1	ENSG00000139289	1.34	0.00
PHLDA2	ENSG00000181649	2.97	0.00
PHLPP1	ENSG00000081913	-1.43	0.01
PHTF1	ENSG00000116793	1.6	0.00
PI4KAP1	ENSG00000274602	-1.48	0.01
PIDD1	ENSG00000177595	-1.56	0.02
PIF1	ENSG00000140451	-1.69	0.00
PIGW	ENSG00000277161	1.55	0.02
PIGZ	ENSG00000119227	-1.64	0.01
PIK3C2B	ENSG00000133056	-1.78	0.03



PIK3CD	ENSG00000171608	1.49	0.00
PIK3IP1	ENSG00000100100	-2.30	0.00
PIK3R3	ENSG00000117461	-1.87	0.02
PIM1	ENSG00000137193	2.21	0.00
PIMREG	ENSG00000129195	-1.52	0.03
PIP4K2A	ENSG00000150867	1.45	0.03
PIP5K1B	ENSG00000107242	-1.51	0.01
PIPOX	ENSG00000179761	-1.35	0.05
PIR	ENSG00000087842	2.92	0.00
PKD1L2	ENSG00000166473	2.19	0.01
PLA2G12B	ENSG00000138308	-1.51	0.00
PLA2G2A	ENSG00000188257	-2.60	0.02
PLA2G3	ENSG00000100078	-2.38	0.02
PLAA	ENSG00000137055	1.3	0.02
PLAC8	ENSG00000145287	1.59	0.00
PLAT	ENSG00000104368	-2.95	0.01
PLCB3	ENSG00000149782	-1.48	0.01
PLCD1	ENSG00000187091	-1.57	0.02
PLCE1	ENSG00000138193	-3.14	0.01
PLCH2	ENSG00000149527	2.51	0.01
PLD2	ENSG00000129219	-1.62	0.04
PLEKHA6	ENSG00000143850	1.49	0.00
PLEKHB1	ENSG00000021300	-1.59	0.00
PLEKHB2	ENSG00000115762	1.21	0.03
PLEKHG3	ENSG00000126822	-1.73	0.00
PLEKHG6	ENSG00000008323	-1.73	0.00
PLEKHM1	ENSG00000225190	1.31	0.03
PLK3	ENSG00000173846	1.49	0.01
PLPPR1	ENSG00000148123	-1.52	0.04
PMM1	ENSG00000100417	-1.78	0.00
PMM2	ENSG00000140650	1.29	0.02
PNCK	ENSG00000130822	-1.73	0.01
PNMA8A	ENSG00000182013	-3.81	0.03
PNO1	ENSG00000115946	1.55	0.00
PNPT1	ENSG00000138035	1.53	0.01
POC1A	ENSG00000164087	-1.79	0.00
PODXL	ENSG00000128567	-2.13	0.00
POLD4	ENSG00000175482	2.06	0.01
POLR3G	ENSG00000113356	2.15	0.02
POMP	ENSG00000132963	1.5	0.04
POMT1	ENSG00000130714	-1.47	0.01
PON2	ENSG00000105854	1.52	0.00
POP1	ENSG00000104356	1.9	0.00
PPID	ENSG00000171497	1.52	0.01
PPIP5K1	ENSG00000168781	-1.59	0.02
PPM1L	ENSG00000163590	-3.86	0.00

PPP1R15A	ENSG00000087074	1.48	0.02
PPP1R16A	ENSG00000160972	-1.51	0.03
PPP2CB	ENSG00000104695	1.25	0.02
PPTC7	ENSG00000196850	1.49	0.05
PRC1	ENSG00000198901	-1.65	0.00
PRDX1	ENSG00000117450	1.52	0.00
PRMT2	ENSG00000160310	-1.41	0.01
PRMT3	ENSG00000185238	1.73	0.00
PRNP	ENSG00000171867	1.51	0.00
PRPSAP1	ENSG00000161542	-1.71	0.00
PRR15L	ENSG00000167183	-3.61	0.01
PRR26	ENSG00000180525	1.73	0.03
PRR36	ENSG00000183248	-2.89	0.00
PRR5	ENSG00000186654	1.47	0.04
PRSS8	ENSG00000052344	-1.75	0.01
PSMB8-AS1	ENSG00000204261	-2.79	0.00
PSMC1	ENSG00000100764	1.4	0.03
PSMC2	ENSG00000161057	1.3	0.02
PSMC6	ENSG00000100519	1.34	0.04
PSMD1	ENSG00000173692	1.3	0.01
PSMD11	ENSG00000108671	1.62	0.00
PSMD12	ENSG00000197170	1.54	0.01
PSMD14	ENSG00000115233	1.28	0.03
PSME3	ENSG00000131467	3.61	0.00
PSME4	ENSG00000068878	1.71	0.04
PSMG1	ENSG00000183527	1.36	0.02
PSRC1	ENSG00000134222	-2.28	0.00
PTCH2	ENSG00000117425	-1.88	0.01
PTER	ENSG00000165983	2.48	0.00
PTGR1	ENSG00000106853	5.25	0.00
PTK2B	ENSG00000120899	-2.07	0.01
PTMS	ENSG00000159335	-1.55	0.02
PTOV1-AS1	ENSG00000268006	-1.53	0.02
PTPN13	ENSG00000163629	-548.75	0.00
PTPN18	ENSG00000072135	-1.33	0.02
PTS	ENSG00000150787	1.41	0.01
PUM3	ENSG00000080608	1.48	0.00
PWP2	ENSG00000241945	1.43	0.03
PXDC1	ENSG00000168994	1.83	0.03
PXN	ENSG00000089159	1.31	0.02
PXYLP1	ENSG00000155893	-2.06	0.00
PYCARD	ENSG00000103490	-1.84	0.01
PYGL	ENSG00000100504	-1.35	0.00
PYGO2	ENSG00000163348	1.49	0.00
QRICH2	ENSG00000129646	-1.64	0.04
QSOX2	ENSG00000165661	1.66	0.01

RAB10	ENSG00000084733	1.68	0.00
RAB11FIP3	ENSG00000090565	-1.35	0.03
RAB12	ENSG00000206418	1.51	0.01
RAB26	ENSG00000167964	-3.05	0.02
RAB27A	ENSG00000069974	1.54	0.01
RAB3B	ENSG00000169213	1.57	0.00
RAB40B	ENSG00000141542	-1.56	0.01
RAB6B	ENSG00000154917	-2.03	0.02
RAB7A	ENSG00000075785	1.21	0.02
RAC3	ENSG00000169750	-1.80	0.03
RAI14	ENSG00000039560	1.73	0.04
RALGPS1	ENSG00000136828	-1.87	0.00
RARG	ENSG00000172819	-2.04	0.03
RARRES2	ENSG00000106538	-1.48	0.03
RASD1	ENSG00000108551	2.69	0.00
RASGRF2	ENSG00000113319	1.64	0.01
RASSF3	ENSG00000153179	1.57	0.02
RBBP7	ENSG00000102054	-1.27	0.04
RBBP8NL	ENSG00000130701	-3.05	0.03
RBM19	ENSG00000122965	1.37	0.00
RBM23	ENSG00000100461	-3.29	0.00
RBM24	ENSG00000112183	3.83	0.00
RBM7	ENSG00000076053	1.35	0.01
RBP5	ENSG00000139194	-1.89	0.01
RCCD1	ENSG00000166965	-1.67	0.02
RCL1	ENSG00000120158	1.44	0.05
RCN3	ENSG00000142552	-1.96	0.00
RCOR2	ENSG00000167771	-1.55	0.05
REEP2	ENSG00000132563	-1.88	0.02
REEP6	ENSG00000115255	-1.89	0.00
RELL2	ENSG00000164620	1.52	0.04
RELT	ENSG00000054967	1.37	0.04
REXO1	ENSG00000079313	1.3	0.04
REXO5	ENSG00000005189	-1.84	0.00
RFC2	ENSG00000049541	-1.61	0.04
RGN	ENSG00000130988	-1.41	0.01
RGS3	ENSG00000138835	1.57	0.04
RHBDD1	ENSG00000144468	1.36	0.04
RHBDF2	ENSG00000129667	1.4	0.03
RHBDL1	ENSG00000103269	-2.71	0.02
RHBDL2	ENSG00000158315	-2.07	0.00
RHBG	ENSG00000132677	-2.14	0.00
RHOBTB1	ENSG00000072422	-1.59	0.00
RHOBTB2	ENSG00000008853	-1.69	0.01
RIMS3	ENSG00000117016	-1.69	0.00
RIPK4	ENSG00000183421	-1.45	0.01

RMI2	ENSG00000175643	-1.60	0.01
RNASE4	ENSG00000258818	-1.32	0.01
RNF122	ENSG00000133874	-1.51	0.02
RNF144A	ENSG00000151692	-1.49	0.03
RNF157	ENSG00000141576	-1.64	0.03
RNF26	ENSG00000173456	-1.36	0.02
RNFT1	ENSG00000189050	1.52	0.02
ROGDI	ENSG00000067836	-1.72	0.02
ROR1	ENSG00000185483	-10.56	0.00
RPARP-AS1	ENSG00000269609	-1.43	0.01
RPF2	ENSG00000197498	1.76	0.05
RPS6KA5	ENSG00000100784	-2.62	0.03
RPSAP69	ENSG00000233487	-1.78	0.00
RRAGD	ENSG00000025039	-2.41	0.02
RRP12	ENSG00000052749	1.32	0.03
RTCA	ENSG00000137996	1.36	0.01
RTN4	ENSG00000115310	1.32	0.00
RTN4R	ENSG00000040608	-2.64	0.04
RTN4RL2	ENSG00000186907	-1.54	0.04
S100A11	ENSG00000163191	1.81	0.03
S100A4	ENSG00000196154	-1.97	0.04
SALL2	ENSG00000165821	-2.14	0.00
SALL4	ENSG00000101115	-2.17	0.03
SAT1	ENSG00000130066	1.63	0.00
SBF2-AS1	ENSG00000246273	1.62	0.02
SBK1	ENSG00000188322	-2.60	0.00
SBK3	ENSG00000231274	2.41	0.00
SCAMP1	ENSG00000085365	2.61	0.02
SCARA3	ENSG00000168077	-2.41	0.00
SCN1A	ENSG00000144285	-2.83	0.00
SCN1B	ENSG00000105711	-2.04	0.02
SCNN1D	ENSG00000162572	-1.67	0.02
SCRN2	ENSG00000141295	-1.74	0.04
SDC4	ENSG00000124145	1.3	0.02
SDCBP2-AS1	ENSG00000234684	-2.48	0.03
SDK2	ENSG00000069188	-179.77	0.00
SEBOX	ENSG00000274529	-1.79	0.00
SECTM1	ENSG00000141574	-2.04	0.02
SEH1L	ENSG00000085415	1.43	0.03
SEL1L3	ENSG00000091490	2.67	0.00
SELENOS	ENSG00000131871	1.74	0.04
SEMA4G	ENSG00000095539	-1.68	0.03
SEMA6B	ENSG00000167680	-1.68	0.01
SEMA6C	ENSG00000143434	-2.35	0.00
SEPT6	ENSG00000125354	-1.87	0.00
SEPT8	ENSG00000164402	-1.33	0.05

SERP1	ENSG00000120742	1.28	0.03
SERPINA6	ENSG00000170099	-2.03	0.00
SERPINA7	ENSG00000123561	-1.55	0.00
SERPINB9	ENSG00000170542	1.49	0.04
SERPINC1	ENSG00000117601	-1.43	0.01
SERPINE2	ENSG00000135919	1.61	0.00
SERTAD1	ENSG00000197019	1.75	0.02
SES3	ENSG00000149212	-4.14	0.02
SETD7	ENSG00000145391	-12.55	0.00
SETX	ENSG00000107290	1.55	0.05
SFN	ENSG00000175793	2.38	0.00
SFRP4	ENSG00000106483	-2.06	0.01
SFXN2	ENSG00000156398	-1.38	0.01
SFXN3	ENSG00000107819	-1.79	0.00
SGTB	ENSG00000197860	1.67	0.02
SH2B1	ENSG00000178188	-1.43	0.01
SH2B3	ENSG00000111252	1.51	0.03
SH2D4A	ENSG00000104611	-1.47	0.01
SH2D5	ENSG00000189410	2.55	0.00
SH3GLB1	ENSG00000097033	1.34	0.02
SH3RF1	ENSG00000154447	2.05	0.00
SIDT2	ENSG00000149577	-1.49	0.03
SIK2	ENSG00000170145	-1.39	0.02
SIRPA	ENSG00000198053	-1.30	0.01
SIRT7	ENSG00000187531	1.62	0.00
SLA2	ENSG00000101082	-3.66	0.02
SLAIN1	ENSG00000139737	-4.44	0.01
SLC11A2	ENSG00000110911	-1.33	0.04
SLC12A5	ENSG00000124140	-2.13	0.02
SLC12A9	ENSG00000146828	-1.35	0.04
SLC13A3	ENSG00000158296	-1.54	0.00
SLC13A5	ENSG00000141485	-1.74	0.00
SLC16A13	ENSG00000174327	-1.40	0.00
SLC16A6	ENSG00000108932	5.7	0.00
SLC17A5	ENSG00000119899	1.41	0.02
SLC20A1	ENSG00000144136	2	0.00
SLC22A17	ENSG00000092096	-2.51	0.01
SLC22A18	ENSG00000110628	2.06	0.02
SLC22A18AS	ENSG00000254827	1.99	0.03
SLC22A23	ENSG00000137266	-1.45	0.01
SLC22A7	ENSG00000137204	-2.08	0.02
SLC23A1	ENSG00000170482	-1.78	0.01
SLC25A32	ENSG00000164933	1.72	0.00
SLC25A33	ENSG00000171612	-1.36	0.04
SLC25A45	ENSG00000162241	-2.01	0.01
SLC26A1	ENSG00000145217	1.54	0.01

SLC26A9	ENSG00000174502	2.02	0.01
SLC28A1	ENSG00000156222	-2.13	0.01
SLC29A1	ENSG00000112759	-1.36	0.04
SLC29A2	ENSG00000174669	-2.14	0.00
SLC29A4	ENSG00000164638	-2.04	0.01
SLC2A4	ENSG00000181856	-1.61	0.00
SLC30A10	ENSG00000196660	-1.85	0.01
SLC35A4	ENSG00000176087	-1.73	0.02
SLC35F1	ENSG00000196376	-142.02	0.00
SLC35F2	ENSG00000110660	1.49	0.00
SLC35G2	ENSG00000168917	1.86	0.01
SLC37A4	ENSG00000137700	-1.72	0.01
SLC38A1	ENSG00000111371	1.59	0.05
SLC38A3	ENSG00000188338	-1.53	0.02
SLC39A10	ENSG00000196950	2.22	0.01
SLC39A11	ENSG00000133195	-1.31	0.04
SLC39A5	ENSG00000139540	-1.47	0.02
SLC41A2	ENSG00000136052	1.74	0.03
SLC44A2	ENSG00000129353	-1.91	0.00
SLC5A11	ENSG00000158865	3.99	0.00
SLC5A9	ENSG00000117834	-1.93	0.00
SLC6A12	ENSG00000111181	-4.29	0.01
SLC6A15	ENSG00000072041	-266.87	0.00
SLC6A4	ENSG00000108576	-1.58	0.01
SLC6A6	ENSG00000131389	2.06	0.02
SLC6A8	ENSG00000130821	-1.58	0.01
SLC6A9	ENSG00000196517	-1.68	0.01
SLC7A1	ENSG00000139514	1.43	0.03
SLC7A11	ENSG00000151012	2.73	0.04
SLCO2B1	ENSG00000137491	-1.72	0.01
SLCO4A1- AS1	ENSG00000232803	-3.36	0.00
SLIT2	ENSG00000145147	-147.03	0.00
SLITRK5	ENSG00000165300	-167.73	0.00
SMIM10L1	ENSG00000256537	1.4	0.02
SMIM13	ENSG00000224531	1.47	0.04
SMIM14	ENSG00000163683	1.54	0.02
SMIM24	ENSG00000095932	-2.38	0.00
SMO	ENSG00000128602	-1.71	0.00
SMPDL3A	ENSG00000172594	1.61	0.04
SMS	ENSG00000102172	1.32	0.03
SMTNL2	ENSG00000188176	-8.75	0.00
SMURF1	ENSG00000198742	1.4	0.01
SNAI1	ENSG00000124216	1.57	0.03
SNAPC4	ENSG00000165684	1.38	0.02
SNIP1	ENSG00000163877	1.23	0.04

SNN	ENSG00000184602	-1.45	0.02
SNTA1	ENSG00000101400	-1.62	0.00
SNX1	ENSG00000028528	1.32	0.03
SNX12	ENSG00000147164	1.43	0.04
SNX25P1	ENSG00000236809	1.91	0.05
SOBP	ENSG00000112320	-1.48	0.01
SOCS1	ENSG00000185338	-2.53	0.00
SOCS3	ENSG00000184557	2.95	0.01
SOCS4	ENSG00000180008	2.94	0.00
SORD2P	ENSG00000259479	1.61	0.03
SOWAHA	ENSG00000198944	-5.28	0.00
SOX7	ENSG00000171056	1.53	0.03
SP5	ENSG00000204335	-1.75	0.00
SPARC	ENSG00000113140	-1.60	0.00
SPG21	ENSG00000090487	1.42	0.01
SPINT2	ENSG00000167642	-5.06	0.03
SPIRE2	ENSG00000204991	-1.59	0.01
SPN	ENSG00000197471	-1.49	0.05
SPP1	ENSG00000118785	4.35	0.00
SPRY4	ENSG00000187678	1.87	0.00
SPSB3	ENSG00000162032	-1.72	0.01
SPTLC3	ENSG00000172296	-3.05	0.00
SQSTM1	ENSG00000161011	2.98	0.00
SRD5A3	ENSG00000128039	-1.59	0.00
SREBF1	ENSG00000072310	-1.47	0.00
SREBF2	ENSG00000198911	-1.25	0.05
SRP54	ENSG00000100883	1.3	0.02
SRPRB	ENSG00000144867	1.36	0.01
SRXN1	ENSG00000271303	5.44	0.00
SRY	ENSG00000184895	-2.93	0.01
SSB	ENSG00000138385	1.76	0.03
SSBP3	ENSG00000157216	-1.29	0.04
SSC4D	ENSG00000146700	-1.91	0.01
SSR3	ENSG00000114850	1.35	0.03
ST3GAL1	ENSG00000008513	-1.39	0.02
ST3GAL5	ENSG00000115525	-2.16	0.01
ST6GAL1	ENSG00000073849	1.23	0.04
STAM	ENSG00000136738	1.57	0.01
STAR	ENSG00000147465	-1.89	0.02
STARD13	ENSG00000133121	-1.36	0.03
STAT2	ENSG00000170581	-1.54	0.00
STC2	ENSG00000113739	1.36	0.04
STRA6	ENSG00000137868	-2.83	0.00
STRAP	ENSG00000023734	1.45	0.01
STX3	ENSG00000166900	2.36	0.00
SULF1	ENSG00000137573	-148.06	0.00

SULT1A1	ENSG00000196502	1.74	0.02
SULT1A2	ENSG00000197165	2.05	0.00
SUSD3	ENSG00000157303	-2.17	0.02
SV2A	ENSG00000159164	-1.82	0.00
SYNE1	ENSG00000131018	-1.53	0.03
SYNE2	ENSG00000054654	-2.43	0.02
SYNGR1	ENSG00000100321	-4.23	0.01
SYNJ2	ENSG00000078269	1.4	0.04
SYPL2	ENSG00000143028	-2.38	0.04
SYT7	ENSG00000011347	-2.23	0.00
TAB1	ENSG00000100324	-1.46	0.01
TACC3	ENSG00000013810	-1.41	0.01
TADA1	ENSG00000152382	-1.38	0.01
TAF6	ENSG00000106290	-1.40	0.04
TAGLN3	ENSG00000144834	21.2	0.00
TALDO1	ENSG00000177156	2.05	0.00
TANC2	ENSG00000170921	-7.46	0.00
TAPBP	ENSG00000231925	-1.31	0.04
TAS1R1	ENSG00000173662	-2.13	0.03
TAT	ENSG00000198650	2.15	0.00
TAX1BP1	ENSG00000106052	1.51	0.03
TBC1D13	ENSG00000107021	-1.27	0.03
TBC1D9	ENSG00000109436	-1.26	0.04
TBK1	ENSG00000183735	1.6	0.03
TBL1X	ENSG00000101849	-1.49	0.00
TBL1Y	ENSG00000092377	-2.06	0.01
TBX2	ENSG00000121068	-2.16	0.00
TBX2-AS1	ENSG00000267280	-2.75	0.01
TCEA3	ENSG00000204219	-1.95	0.00
TCF19	ENSG00000137310	-1.39	0.01
TCTN2	ENSG00000168778	-1.65	0.03
TEF	ENSG00000167074	-2.11	0.00
TEFM	ENSG00000172171	1.46	0.04
TESK2	ENSG00000070759	-1.92	0.00
TEX19	ENSG00000182459	2.64	0.00
TFB2M	ENSG00000162851	1.46	0.03
TFE3	ENSG00000068323	1.48	0.00
TFF3	ENSG00000160180	-1.93	0.03
TFP1	ENSG00000242337	-1.47	0.00
TFPI	ENSG00000003436	1.39	0.02
TFR2	ENSG00000106327	-1.51	0.04
TFRC	ENSG00000072274	1.43	0.03
TGFB1	ENSG00000105329	1.45	0.03
TGIF2	ENSG00000118707	1.43	0.03
THAP1	ENSG00000131931	1.47	0.01
THBS3	ENSG00000169231	-1.88	0.04



THOC6	ENSG00000131652	-1.61	0.01
TIAM1	ENSG00000156299	-184.82	0.00
TICAM1	ENSG00000127666	1.44	0.03
TICRR	ENSG00000140534	-1.54	0.01
TIGAR	ENSG00000078237	1.62	0.01
TIGD3	ENSG00000173825	-2.38	0.01
TIMELESS	ENSG00000111602	-1.30	0.05
TIMM17A	ENSG00000134375	1.36	0.02
TIMP1	ENSG00000102265	2.1	0.01
TIMP3	ENSG00000100234	-1.52	0.00
TINAG	ENSG00000137251	7.64	0.00
TJP3	ENSG00000105289	-3.43	0.00
TK1	ENSG00000167900	-1.56	0.02
TKT	ENSG00000163931	1.47	0.02
TLCD1	ENSG00000160606	-2.03	0.02
TLE1	ENSG00000196781	-1.33	0.02
TLE4	ENSG00000106829	-8.11	0.00
TLN2	ENSG00000171914	-1.57	0.01
TM4SF1	ENSG00000169908	1.34	0.05
TMC8	ENSG00000167895	2.18	0.00
TMCC1	ENSG00000172765	1.7	0.00
TMEM106C	ENSG00000134291	-1.56	0.05
TMEM107	ENSG00000179029	-1.62	0.04
TMEM126B	ENSG00000171204	1.35	0.03
TMEM139	ENSG00000178826	-1.95	0.01
TMEM198B	ENSG00000182796	-2.13	0.01
TMEM2	ENSG00000135048	1.75	0.02
TMEM200B	ENSG00000253304	-2.27	0.03
TMEM214	ENSG00000119777	1.3	0.03
TMEM268	ENSG00000157693	2.81	0.02
TMEM33	ENSG00000109133	3.11	0.02
TMEM52	ENSG00000178821	-1.72	0.01
TMEM87B	ENSG00000153214	2.07	0.04
TMEM8B	ENSG00000137103	-1.62	0.04
TMEM94	ENSG00000177728	-1.64	0.01
TMOD2	ENSG00000128872	-4.44	0.03
TMPRSS2	ENSG00000184012	-2.20	0.01
TMPRSS6	ENSG00000187045	-1.97	0.00
TMPRSS9	ENSG00000178297	-1.74	0.02
TMX3	ENSG00000166479	1.82	0.03
TNFRSF10A	ENSG00000104689	1.67	0.00
TNFRSF10B	ENSG00000120889	1.28	0.01
TNFRSF10D	ENSG00000173530	1.72	0.00
TNFRSF19	ENSG00000127863	-1.42	0.05
TNFRSF1A	ENSG00000067182	1.64	0.01
TNFRSF21	ENSG00000146072	1.39	0.03

TNFSF9	ENSG00000125657	2.41	0.00
TNNC1	ENSG00000114854	-2.75	0.01
TNNI2	ENSG00000130598	-2.95	0.00
TNNT1	ENSG00000105048	-2.53	0.04
TNRC18	ENSG00000182095	-1.38	0.01
TNRC6C-AS1	ENSG00000204282	1.49	0.02
TNS4	ENSG00000131746	3.53	0.00
TNXB	ENSG00000168477	-1.30	0.03
TOB1-AS1	ENSG00000229980	-1.88	0.03
TOMM34	ENSG00000025772	1.47	0.01
TOP1	ENSG00000198900	1.62	0.01
TOR1AIP1	ENSG00000143337	1.47	0.04
TP53I3	ENSG00000115129	-1.46	0.04
TP53INP2	ENSG00000078804	-1.43	0.00
TPBG	ENSG00000146242	-1.82	0.03
TPGS2	ENSG00000134779	-1.45	0.03
TRAF3IP2	ENSG00000056972	-1.40	0.02
TRIB1	ENSG00000173334	1.84	0.00
TRIM26	ENSG00000234127	-1.26	0.03
TRIM45	ENSG00000134253	-1.78	0.03
TRIM54	ENSG00000138100	33.45	0.00
TRIM74	ENSG00000155428	-3.76	0.00
TRNP1	ENSG00000253368	1.42	0.02
TRNT1	ENSG00000072756	1.79	0.01
TROAP	ENSG00000135451	-1.57	0.01
TRPV1	ENSG00000196689	-1.56	0.03
TSC2	ENSG00000103197	-1.37	0.04
TSC22D1	ENSG00000102804	-1.33	0.01
TSC22D3	ENSG00000157514	-10.41	0.00
TSKU	ENSG00000182704	1.86	0.00
TSR1	ENSG00000167721	1.3	0.00
TTBK1	ENSG00000146216	-3.10	0.04
TTC23	ENSG00000103852	-1.57	0.03
TTC27	ENSG00000018699	1.34	0.02
TTC39C	ENSG00000168234	1.56	0.03
TTR	ENSG00000118271	-1.62	0.01
TTYH1	ENSG00000167614	-1.89	0.00
TUBB1	ENSG00000101162	-1.93	0.00
TUBB8P12	ENSG00000173213	-2.77	0.01
TUSC3	ENSG00000104723	-3.10	0.02
TXN	ENSG00000136810	1.83	0.00
TXNRD1	ENSG00000198431	5.86	0.00
TYMSOS	ENSG00000176912	-1.79	0.02
UBA7	ENSG00000182179	-1.80	0.00
UBASH3B	ENSG00000154127	2.46	0.00
UBE2C	ENSG00000175063	-1.38	0.02

UBE2D3	ENSG00000109332	1.22	0.04
UBE2E3	ENSG00000170035	1.42	0.01
UBE2K	ENSG00000078140	1.64	0.00
UBE2L6	ENSG00000156587	-1.69	0.01
UBE2SP1	ENSG00000233966	-1.71	0.03
UBOX5	ENSG00000185019	1.32	0.00
UBXN8	ENSG00000104691	1.47	0.02
UCHL1	ENSG00000154277	-30.27	0.01
UCHL5	ENSG00000116750	1.37	0.04
UCP2	ENSG00000175567	-1.82	0.03
UGDH	ENSG00000109814	3.55	0.00
UGGT2	ENSG00000102595	1.67	0.01
UNC13D	ENSG00000092929	-1.40	0.03
UNC5B	ENSG00000107731	-53.08	0.00
UPK3A	ENSG00000100373	-2.46	0.00
UPP1	ENSG00000183696	1.97	0.01
UROC1	ENSG00000159650	-4.76	0.01
USP15	ENSG00000135655	1.36	0.05
USP30	ENSG00000135093	-1.75	0.00
USP36	ENSG00000055483	1.34	0.03
UTP11	ENSG00000183520	1.68	0.04
UTP14A	ENSG00000156697	1.52	0.01
UTP15	ENSG00000164338	1.48	0.04
UTP18	ENSG00000011260	1.37	0.05
UTP4	ENSG00000141076	1.26	0.05
UTP6	ENSG00000108651	1.33	0.01
VAPA	ENSG00000101558	1.44	0.01
VASH1	ENSG00000071246	-3.73	0.02
VASN	ENSG00000168140	-1.45	0.05
VASP	ENSG00000125753	1.48	0.00
VAV3	ENSG00000134215	-1.92	0.00
VILL	ENSG00000136059	-2.01	0.03
VIM	ENSG00000026025	-83.29	0.00
VMP1	ENSG00000062716	1.56	0.00
VNN1	ENSG00000112299	2.17	0.01
VPS37A	ENSG00000155975	1.79	0.01
VPS37D	ENSG00000176428	-2.01	0.00
VPS45	ENSG00000136631	-1.42	0.01
VPS51	ENSG00000149823	-1.61	0.03
VSIG10	ENSG00000176834	-1.42	0.03
VSNL1	ENSG00000163032	-1.44	0.00
VWA1	ENSG00000179403	-1.56	0.04
WASH7P	ENSG00000227232	-1.47	0.03
WASHC1	ENSG00000181404	-1.44	0.03
WDFY2	ENSG00000139668	-1.39	0.01
WDR12	ENSG00000138442	1.23	0.04

WDR3	ENSG00000065183	1.45	0.04
WDR34	ENSG00000119333	-1.77	0.01
WDR43	ENSG00000163811	1.44	0.03
WDR92	ENSG00000243667	1.44	0.04
WDTC1	ENSG00000142784	-1.24	0.04
WHRN	ENSG00000095397	-1.83	0.00
WLS	ENSG00000116729	-182.28	0.00
WNT11	ENSG00000085741	-12.55	0.02
WSB2	ENSG00000176871	1.44	0.01
WSCD1	ENSG00000179314	-4.99	0.01
WTIP	ENSG00000142279	-1.64	0.02
WWC3	ENSG00000047644	1.48	0.03
XIST	ENSG00000229807	-464.65	0.00
XPNPEP2	ENSG00000122121	-1.87	0.01
XPO5	ENSG00000124571	1.24	0.03
XRCC1	ENSG00000073050	-1.28	0.03
XRCC3	ENSG00000126215	-1.43	0.01
XXYLT1	ENSG00000173950	1.35	0.01
YBX3	ENSG00000060138	1.44	0.02
YIPF6	ENSG00000181704	4.95	0.02
YPEL3	ENSG00000090238	-1.74	0.02
YRDC	ENSG00000196449	1.57	0.00
YWHAG	ENSG00000170027	1.34	0.03
YWHAZ	ENSG00000164924	1.37	0.04
Z98200.1	ENSG00000271734	1.69	0.01
ZBTB2	ENSG00000181472	1.32	0.02
ZBTB22	ENSG00000236104	-1.52	0.02
ZC3H6	ENSG00000188177	-3.46	0.02
ZDHHC9	ENSG00000188706	1.43	0.02
ZER1	ENSG00000160445	-1.33	0.01
ZFAND2B	ENSG00000158552	-1.92	0.00
ZFAND5	ENSG00000107372	1.96	0.00
ZFP14	ENSG00000142065	-1.89	0.02
ZFP36L1	ENSG00000185650	1.52	0.02
ZFPM2-AS1	ENSG00000251003	2.16	0.04
ZGPAT	ENSG00000197114	-1.55	0.01
ZMIZ1-AS1	ENSG00000224596	4.06	0.01
ZMPSTE24	ENSG00000084073	1.69	0.02
ZMYM3	ENSG00000147130	-1.53	0.01
ZNF16	ENSG00000170631	-1.39	0.04
ZNF219	ENSG00000165804	-1.42	0.04
ZNF22	ENSG00000165512	-15.45	0.00
ZNF230	ENSG00000159882	-1.66	0.04
ZNF362	ENSG00000160094	-1.91	0.00
ZNF395	ENSG00000186918	-1.37	0.03
ZNF439	ENSG00000171291	-1.64	0.03

ZNF496	ENSG00000162714	-1.45	0.02
ZNF554	ENSG00000172006	-1.58	0.03
ZNF57	ENSG00000171970	-1.57	0.03
ZNF608	ENSG00000168916	-1.93	0.02
ZNF697	ENSG00000143067	1.75	0.00
ZNF714	ENSG00000160352	-3.14	0.04
ZNF724	ENSG00000196081	-1.75	0.00
ZNF746	ENSG00000181220	1.45	0.03
ZNF792	ENSG00000180884	-1.64	0.01
ZNF839	ENSG00000022976	-1.88	0.04
ZNF850	ENSG00000267041	-2.71	0.00
ZNFX1	ENSG00000124201	1.31	0.04
ZNHIT6	ENSG00000117174	1.34	0.04
ZSWIM1	ENSG00000168612	-1.48	0.01

<sup>1</sup>Fold change of SF treated cells compared to DMSO control

<sup>2</sup>adjusted p-values (q-values) were determined through Benjamini-Hochberg