

Supplementary Table 1

Gene	ConMean	TreatMean	LogFC	P Value
A1BG	0.063297511	-0.11828423	-0.18158174	0.006217374
A1CF	-0.071201293	0.028243862	0.099445155	0.033255409
AAK1	0.118791702	0.22052776	0.101736059	0.025772369
AARS	-0.126108038	0.021777672	0.14788571	0.009568606
ABI3	-0.033373251	-0.14816466	-0.11479141	0.017822897
ABL2	-0.009826361	0.1938597	0.203686061	0.037050108
ABLIM1	0.072536514	0.291970826	0.219434312	0.003486297
ABR	-0.059103452	-0.23592158	-0.17681813	0.020401765
ACADS	-0.547645616	-0.69726082	-0.14961521	0.031520759
ACAP1	-0.084061964	-0.35015217	-0.2660902	0.003571817
ACBD5	-0.070000395	0.139051524	0.209051919	0.039051519
ACBD6	0.064832236	0.279458789	0.214626553	0.00307784
ACP2	0.094074609	-0.0521875	-0.14626211	0.009612272
ACSL6	-0.328132097	0.09237885	0.420510946	0.020051249
ACTR2	0.000284816	-0.07077895	-0.07106377	0.025702029
ACTR6	0.024726375	0.130210129	0.105483754	0.010000253
ADRM1	0.065206846	0.137681767	0.072474921	0.035941002
AGFG2	-0.016678922	0.165470322	0.182149244	0.015858033
AGXT2	-0.772522	-1.06659036	-0.29406836	0.029456501
AIMP1	-0.031506108	0.047970863	0.079476971	0.031099852
AIMP2	-0.022502508	0.041874874	0.064377382	0.026615193
AIP	-0.038921453	0.120529258	0.159450711	0.045863278
AKT1	-0.057882415	-0.19072604	-0.13284362	0.02410536
ALG10	0.07483887	-0.10263398	-0.17747285	0.000409702
AMPD3	-0.036738004	-0.2249006	-0.18816259	0.033207066
ANAPC11	-0.001516917	0.100916337	0.102433254	0.026407828
ANKMY2	0.035539602	0.181619147	0.146079545	0.030220948
ANKRD22	0.122665594	-0.28303876	-0.40570435	0.000707169
ANKRD40	0.037862772	0.176876541	0.139013769	0.015966216
ANO6	0.016607063	0.148169283	0.131562219	0.008566089
ANXA5	-0.056823829	-0.21762516	-0.16080133	0.032467054
AP1G2	0.068658032	-0.16909126	-0.2377493	0.011665982
APBB2	-0.10948196	0.007909583	0.117391543	0.041001206
APOA1	0.02189175	-0.18599361	-0.20788536	0.005640418
APOBEC3C	-0.104925542	-0.25603391	-0.15110837	0.034236817
APOBEC3G	-0.09317841	-0.32878218	-0.23560377	0.008817828
APOC3	-0.053776133	-0.33996079	-0.28618466	0.01354071
APOL3	-0.167534666	-0.43082325	-0.26328859	0.034071981
ARHGAP15	-0.081633267	-0.24987706	-0.16824379	0.030851968
ARHGAP25	-0.081829126	-0.24137261	-0.15954348	0.015384921
ARHGAP4	0.018220338	-0.17863698	-0.19685732	0.013791927
ARHGEF40	0.139686223	0.054366107	-0.08532012	0.028589369
ARID4A	0.066928111	-0.03756304	-0.10449115	0.037607361
ARL5A	0.007199684	0.172571482	0.165371798	0.012402472
ARL8B	-0.010955564	0.15861599	0.169571555	0.000908524
ARMC8	0.103787908	0.033334625	-0.07045328	0.030010903
ARMCX2	-0.025880266	-0.23277874	-0.20689847	0.002476121
ARPC4	-0.052315821	-0.15763115	-0.10531532	0.007590008
ARPC5L	-0.088129521	-0.19783555	-0.10970603	0.017972536

ASB8	0.07041573	-0.02786583	-0.09828156	0.020355429
ASNA1	0.002048349	0.131206678	0.129158329	0.024700314
ASPG	-0.615537943	-0.7856275	-0.17008956	0.007899893
ASPH	-0.221757909	-0.00113116	0.220626749	0.043217448
ATAD1	-0.074773584	0.067473768	0.142247352	0.018886044
ATE1	-0.021543187	0.097355215	0.118898403	0.014113654
ATF2	0.086707318	0.259948559	0.173241241	0.003707054
ATG16L1	0.013175385	0.131929414	0.118754029	0.005061196
ATP2A3	-0.185944557	-0.43161486	-0.2456703	0.010094848
ATP6V0A1	0.052578111	0.160144216	0.107566106	0.049880483
ATP6VOD1	-0.10007044	0.038484513	0.138554952	0.006704742
ATP6VOD2	-0.062127823	0.101120436	0.163248259	0.025360899
ATXN1L	0.064213922	0.162765758	0.098551836	0.044389926
ATXN7	0.651150416	0.234858035	-0.41629238	0.008266
AVL9	0.10169705	0.240276962	0.138579912	0.005877848
BAG3	-0.025074094	0.193949034	0.219023128	0.006126899
BAHCC1	-0.125097804	0.120897562	0.245995366	0.003701658
BCCIP	-0.041385719	0.086397502	0.127783221	0.027640108
BCL2L1	-0.032873415	0.113967868	0.146841283	0.037957791
BEND7	-0.007655191	0.070616275	0.078271466	0.02847309
BIN2	-0.115931395	-0.28481461	-0.16888322	0.032367878
BNIP2	0.018801357	-0.13000631	-0.14880767	0.005241853
BTD	-0.098031379	-0.2498451	-0.15181372	0.011833103
C11orf58	0.310285787	0.470345294	0.160059507	0.036798349
C12orf73	0.192437817	0.339045097	0.146607279	0.048808624
C1QA	-0.187330102	-0.42828475	-0.24095465	0.022863393
C2orf69	0.031988001	0.181229337	0.149241336	0.032301908
C5orf51	-0.015054484	0.11838593	0.133440414	0.021438443
C8orf33	0.131752809	0.317782297	0.186029488	0.041624075
C9orf40	0.063240913	0.212296583	0.149055671	0.021107201
CA4	0.275318371	-0.05248103	-0.3277994	0.009829342
CALCRL	0.259787161	0.060451478	-0.19933568	0.015871533
CAMK2G	-0.045180369	0.073508391	0.118688761	0.038897412
CAND2	-0.421658012	-0.58817727	-0.16651925	0.034464973
CAPRIN1	0.182999654	0.267791687	0.084792033	0.035596192
CARM1	0.076274135	0.191946645	0.11567251	0.047185568
CARMIL2	0.272934176	0.008428635	-0.26450554	0.008472321
CCDC102A	-0.03783955	-0.23506525	-0.1972257	0.002931165
CCDC22	-0.109112866	-0.02958355	0.079529316	0.020302198
CCDC28A	-0.066269044	0.055724994	0.121994039	0.017510565
CCDC69	-0.065206454	-0.21280691	-0.14760046	0.03714705
CCDC71	0.047295932	-0.07629833	-0.12359426	0.020575297
CCDC93	-0.104236612	0.0282408	0.132477412	0.000500424
CCL5	-0.298565623	-0.49843905	-0.19987342	0.049822716
CCM2	0.142294509	0.027310403	-0.11498411	0.010049846
CCS	-0.232381045	-0.05394544	0.178435607	0.015058441
CCT2	-0.037512407	0.0323059	0.069818307	0.044481178
CCT3	-0.010420543	0.077111104	0.087531647	0.020131882
CCT4	-0.028596426	0.044079238	0.072675664	0.039635925
CCT5	-0.051817288	0.050773862	0.10259115	0.004519218
CCT6A	-0.044273227	0.049389839	0.093663066	0.011346865

CCT6B	-0.724331837	-0.40595847	0.318373366	0.013527668
CCT7	-0.051328693	0.051669024	0.102997717	0.005785159
CCT8	-0.021666663	0.092417908	0.114084572	0.008179774
CD2	0.059232005	-0.19818834	-0.25742034	0.013145167
CD38	-0.253916577	-0.50636897	-0.25245239	0.032489086
CD3D	0.097996483	-0.03995597	-0.13795245	0.014118559
CD3E	0.025361919	-0.24738924	-0.27275116	0.01092477
CD3EAP	0.090631382	0.254403055	0.163771672	0.019224533
CD3G	-0.078891259	-0.31681748	-0.23792622	0.024959309
CD4	-0.265286942	-0.39580424	-0.13051729	0.04908019
CD5	-0.027271196	-0.3211804	-0.2939092	0.015336499
CD8A	-0.354410979	-0.70579195	-0.35138097	0.001646821
CDR2	0.465162969	0.225192218	-0.23997075	0.0264883
CEACAM20	-0.382977942	-0.05553185	0.327446094	0.012897011
CELF1	0.061069911	0.158188527	0.097118616	0.003324431
CELF2	-0.05980304	-0.21305818	-0.15325514	0.030706383
CEP192	0.089508331	-0.01167722	-0.10118556	0.021440955
CETP	-0.248263523	-0.5440183	-0.29575477	0.008825444
CFDP1	0.067370512	0.254319764	0.186949253	0.008680546
CHCHD10	-0.336119385	0.001832189	0.337951574	0.019865718
CHCHD2	0.011534884	0.228212612	0.216677728	0.049860801
CHL1	0.305737321	0.002109134	-0.30362819	0.009633995
CHMP4B	0.048468663	0.140525457	0.092056794	0.042763687
CHMP5	0.067141322	0.169300604	0.102159282	0.017472374
CHUK	0.102648888	0.243414306	0.140765417	0.002059669
CIAO1	-0.084043351	0.012479693	0.096523044	0.030545817
CIAPIN1	0.01844283	0.161654861	0.143212031	0.005049574
CISD1	-0.092411261	0.083099717	0.175510978	0.037990641
CLIC2	-0.28650827	-0.41549986	-0.12899159	0.038808654
CLINT1	0.09041766	0.21330867	0.122891009	0.002373969
CLIP1	-0.022067687	0.177308761	0.199376449	0.002582729
CLTA	0.076408893	0.178793424	0.102384531	0.020347754
CMC1	-0.159946661	0.121461318	0.281407978	0.024813151
CMSS1	0.119940416	0.282578947	0.16263853	0.008103226
CNBP	0.015739667	0.177164772	0.161425105	0.012715222
CNIH1	-0.356552865	-0.15393936	0.202613501	0.042626009
CNTRL	0.037410766	-0.15576289	-0.19317366	0.004608277
COA6	-0.16970202	0.064833589	0.234535609	0.047372233
COL15A1	0.401198549	0.103146577	-0.29805197	0.00541222
COMMD1	-0.079685347	0.017059825	0.096745172	0.005021502
COMMD10	-0.095344709	0.036394171	0.131738879	0.000119038
COMMD4	-0.027385246	0.055284992	0.082670238	0.01979765
COMMD6	-0.087000866	0.012786095	0.099786961	0.010884755
COMMD7	-0.079360668	0.046302898	0.125663565	0.001136488
COMMD8	-0.078909708	0.056310245	0.135219952	0.001133984
COMMD9	-0.080912303	0.021873983	0.102786286	0.010070804
COMTD1	-0.331575507	-0.14958166	0.181993851	0.024373791
COQ7	-0.19113958	-0.03329326	0.157846323	0.046605935
CORO1A	-0.209467724	-0.44315655	-0.23368883	0.030509645
CPA2	-0.574571685	-1.03780102	-0.46322934	0.0423425
CPNE3	-0.176470433	-0.0643447	0.11212573	0.041509621

CPVL	-0.34925373	-0.15714988	0.192103846	0.036825121
CSNK2A1	0.205017847	0.262451437	0.05743359	0.045748353
CSNK2B	0.09673636	0.190692462	0.093956102	0.006061194
CT45A1	0.346263448	-0.06784792	-0.41411137	0.043816136
CWC27	0.03107007	0.160604726	0.129534655	0.011943615
CXCL13	0.087595473	-0.07433626	-0.16193173	0.021278543
CYB5R2	-0.321086761	-0.48767293	-0.16658617	0.039334947
CYP4F3	-0.144275233	-0.34666282	-0.20238759	0.033350387
CYTH4	-0.060107304	-0.21487028	-0.15476298	0.016907121
DCP2	-0.024430827	0.083952805	0.108383632	0.041141556
DCTN1	-0.047292823	0.021961697	0.06925452	0.040227916
DCTN2	-0.057093132	0.012565413	0.069658545	0.041854299
DCUN1D4	0.070627559	0.25489894	0.184271381	0.023517274
DDHD1	0.16024493	0.021971105	-0.13827382	0.022870318
DDX10	0.175207657	0.295104589	0.119896932	0.043513217
DDX19A	0.001823826	0.151611312	0.149787486	0.009107238
DDX21	0.071264384	0.225870739	0.154606355	0.043556897
DDX46	0.165765859	0.253881919	0.08811606	0.024231632
DEF6	0.012759628	-0.1853927	-0.19815232	0.018738687
DENND1C	-0.023929873	-0.18159636	-0.15766648	0.031228791
DENND3	-0.058067664	-0.17686569	-0.11879803	0.018345745
DENR	-0.003971744	0.098005218	0.101976963	0.026066507
DEPDC7	-0.222702845	-0.06981504	0.152887804	0.022150611
DGAT2	0.064845216	-0.13571308	-0.20055829	0.015511914
DIAPH2	-0.023430484	0.125682287	0.149112772	0.010086101
DIRC2	0.066864056	-0.14235759	-0.20922164	0.006477162
DNAH14	-0.088145059	-0.2745196	-0.18637454	0.022544822
DNAJA2	-0.099943043	0.067032738	0.166975782	0.005236745
DNALI1	0.013098408	-0.22273701	-0.23583542	0.014299135
DNMBP	-0.048139954	0.094290315	0.142430269	0.003126686
DOCK2	-0.136500687	-0.31822745	-0.18172676	0.027366229
DOCK8	-0.120364203	-0.25284193	-0.13247773	0.043989803
DPP9	0.061409246	-0.04723013	-0.10863938	0.036227399
DQX1	-0.002392212	-0.12520865	-0.12281643	0.019714581
DUSP16	-0.003197704	-0.08234784	-0.07915014	0.026664872
DVL1	-0.167308905	-0.06999383	0.097315076	0.041424375
DYNC1LI2	-0.081594839	0.04406281	0.125657649	0.007496471
EIF1AD	0.195379709	0.303389564	0.108009855	0.029725075
EIF3D	-0.031777418	0.022687821	0.05446524	0.047342381
EIF3I	0.000328431	0.086244757	0.085916325	0.008027132
EIF3J	0.068405541	0.16998127	0.101575729	0.016706578
EIF4B	0.100301817	0.196215039	0.095913223	0.032269428
EIF4EBP2	0.069023613	0.193578459	0.124554846	0.049859969
EIF6	-0.021686398	0.0867847	0.108471098	0.019894504
ELOC	0.060544284	0.148358742	0.087814457	0.039286441
ELOF1	-0.19417657	-0.00929552	0.184881054	0.001656021
EML4	-0.037724571	0.097858614	0.135583185	0.004255639
EMP3	0.029336032	-0.16669892	-0.19603496	0.038999581
EPRS	0.019413483	0.10830139	0.088887907	0.007978454
ERG	0.010159163	-0.12578111	-0.13594027	0.020340429
ERP44	0.011234442	-0.12790522	-0.13913966	0.008799721

ESF1	0.075907354	0.272263731	0.196356377	0.006781392
ETV6	0.13388324	0.007124974	-0.12675827	0.012412195
EVL	-0.066367154	-0.25517524	-0.18880808	0.048395032
EXOC1	0.000513325	0.085837528	0.085324203	0.027596268
EXOC2	0.020160307	0.096298567	0.07613826	0.048694771
EXOC3	0.004134101	0.107183897	0.103049796	0.006534394
EXOC4	0.036614942	0.102954803	0.066339861	0.042999062
FAM126B	-0.083885294	0.065796868	0.149682161	0.040038589
FAM198B	0.019866124	-0.04900971	-0.06887584	0.03904782
FAM208A	0.217374905	0.10882789	-0.10854701	0.001892721
FAM91A1	0.136692541	0.244918999	0.108226459	0.010091768
FARSA	0.097742378	0.185474368	0.08773199	0.04408809
FARSB	0.050457702	0.205911037	0.155453335	0.002710682
FERMT1	-0.329575135	0.036654389	0.366229524	0.015294947
FKBP1A	0.064896739	0.134129715	0.069232976	0.042535744
FKBP4	-0.017102526	0.125709778	0.142812304	0.040655718
FLI1	0.120128883	-0.05535506	-0.17548394	0.040428445
FMNL1	-0.065742951	-0.26925723	-0.20351427	0.023907009
FNBP1L	0.071083677	0.20887315	0.137789473	0.044607407
FRA1OAC1	0.083452272	0.227206013	0.143753741	0.021600547
FRMD6	0.028554405	-0.12962277	-0.15817717	0.01994228
FURIN	0.190467116	0.038363784	-0.15210333	0.048833788
FUT8	-0.131361683	-0.28697682	-0.15561514	0.04586189
G6PC	-0.299311604	-0.552938	-0.2536264	0.025036278
GABARAPL2	-0.237524516	-0.3733635	-0.13583899	0.03515412
GALC	0.018535402	-0.21981785	-0.23835325	0.012506834
GATD1	-0.057355398	0.025237073	0.082592471	0.043512064
GGNBP2	0.110440285	-0.01613467	-0.12657495	0.043190384
GHR	-0.358862754	-0.58843346	-0.22957071	0.013037963
GIMAP4	-0.161194402	-0.3235879	-0.1623935	0.021845293
GIMAP6	-0.039503878	-0.19065759	-0.15115371	0.011772568
GIMAP7	-0.117255658	-0.27856705	-0.16131139	0.024871926
GJB1	-0.088275979	-0.26475398	-0.176478	0.046310552
GLO1	-0.230734414	-0.07970912	0.151025292	0.017557532
GLRX3	0.05571133	0.160990742	0.105279411	0.037921344
GLUL	-0.737219087	-0.19413125	0.543087833	0.035769743
GMIP	-0.009454981	-0.11842162	-0.10896664	0.039078636
GMPPA	-0.029028368	-0.12019505	-0.09116668	0.035966394
GMPPB	-0.015672449	-0.12918864	-0.11351619	0.016473987
GNA14	-0.252557967	-0.41984517	-0.1672872	0.041259381
GORASP1	0.053251849	-0.05751128	-0.11076313	0.008809947
GPATCH11	0.139158987	0.252684667	0.11352568	0.029177269
GPATCH4	0.134898284	0.35151149	0.216613207	0.02168114
GPKOW	0.127680062	0.218134957	0.090454895	0.049575635
GPN3	-0.070118533	0.033658275	0.103776808	0.032361163
GRAP	-0.219139862	-0.35974639	-0.14060653	0.027252438
GRAP2	-0.128121879	-0.34240583	-0.21428396	0.03462061
GUCD1	0.175500121	-0.00270729	-0.17820741	0.011982442
GYS1	-0.132558877	-0.23663346	-0.10407459	0.03494956
GZMA	-0.26413221	-0.47941436	-0.21528215	0.015723808
HBM	-0.028641323	-0.17000096	-0.14135964	0.029361607

HERC2	0.010624445	0.083807655	0.073183209	0.022973974
HGS	0.142370175	0.220590347	0.078220171	0.029742538
HID1	0.009061498	-0.28101096	-0.29007245	0.010914023
HIGD1A	0.220072584	0.014475284	-0.2055973	0.008646533
HLA-DPA1	0.001547086	-0.19415913	-0.19570622	0.02333536
HMG20A	0.12319237	0.046479503	-0.07671287	0.044730905
HMGCS2	-0.341224305	-0.53950999	-0.19828568	0.02784603
HRG	0.097409479	-0.04581841	-0.14322789	0.046133848
HS1BP3	-0.040257863	0.073099748	0.113357611	0.040057457
HSPA1A	-0.193053321	0.036040193	0.229093513	0.023369077
HSPA4	0.059110196	0.171355574	0.112245378	0.034660794
HSPA4L	-0.229666572	-0.00270846	0.22695811	0.040472931
HSPB8	-0.495246801	-0.22278843	0.27245837	0.037341837
HSPE1	-0.067531887	0.115725009	0.183256896	0.027634637
HYAL2	0.06156829	-0.05437771	-0.115946	0.047534431
IARS	0.050041231	0.167303969	0.117262738	0.025656582
IDI1	0.013316685	0.244114139	0.230797454	0.038333604
IDUA	0.357920046	0.100398356	-0.25752169	0.01216752
IGF2R	-0.109017329	0.140288742	0.249306071	0.002401027
IGFALS	-0.163891224	-0.29112174	-0.12723051	0.041902861
IGHMBP2	-0.138210529	0.067544357	0.205754886	0.041746531
IGKV4-1	-0.166941517	-0.43024254	-0.26330102	0.015854496
IKBKG	0.040158988	0.174345571	0.134186582	0.000947703
IKZF1	-0.05482778	-0.26474828	-0.2099205	0.049896465
INTS13	0.193720902	0.127120681	-0.06660022	0.029373064
IPO8	0.195039836	0.045485801	-0.14955403	0.003138116
IQCB1	0.056221951	-0.07873085	-0.1349528	0.021891023
IQGAP3	0.012900592	0.163493049	0.150592457	0.039930307
IRF2BPL	0.104771707	-0.05878781	-0.16355952	0.003403612
IRF8	-0.078594015	-0.25365548	-0.17506146	0.01460806
ITGA11	0.162478518	-0.07734854	-0.23982705	0.033126457
ITGAX	0.135834427	-0.03588128	-0.17171571	0.042001537
ITIH4	0.03388212	-0.12419062	-0.15807274	0.016766076
ITM2B	0.033276897	-0.14251185	-0.17578874	0.028225614
JAK3	0.042791765	-0.10505758	-0.14784935	0.003106044
JMJD1C	-0.033067354	0.1441394	0.177206754	0.000784818
JPT2	0.085096291	0.250951664	0.165855374	0.026383766
KARS	-0.077839886	0.023562348	0.101402233	0.026975815
KDEL1R	-0.057922232	-0.20537879	-0.14745656	0.033710673
KDEL2R	-0.108679347	-0.3222183	-0.21353896	0.014338737
KDM6A	0.21758848	0.078035903	-0.13955258	0.039235884
KDR	-0.107480848	-0.25787871	-0.15039786	0.025844788
KHDRBS3	-0.001957531	0.181888408	0.183845939	0.034973584
KIF13A	0.103444056	0.207461761	0.104017705	0.034037047
KIF16B	0.030013353	0.174990782	0.144977429	0.001720379
KIZ	-0.121397355	-0.04447398	0.076923371	0.036413037
KRR1	0.106566628	0.226999287	0.120432659	0.014823918
KRT80	-0.04541563	-0.29332562	-0.24790999	0.00788352
LAMA3	-0.301935191	-0.06026945	0.241665737	0.040890591
LAMC2	-0.2225191	-0.05410094	0.16841816	0.034878123
LARS	0.053319961	0.157066933	0.103746972	0.020065912

LCK	-0.038178038	-0.22141062	-0.18323258	0.010713597
LCP1	-0.201627609	-0.40646966	-0.20484205	0.027636676
LDB3	0.036043693	-0.29066481	-0.3267085	0.004457221
LEPROT	-0.03796177	0.142451931	0.180413701	0.045584077
LHPP	-0.46385316	-0.2727987	0.191054458	0.04197176
LIMD2	-0.015662645	-0.29028623	-0.27462358	0.022777185
LIMS1	-0.156684549	-0.03361757	0.123066982	0.020460946
LIN7A	-0.00619697	0.128812941	0.135009911	0.023338795
LPIN2	-0.021761037	-0.17181244	-0.15005141	0.023721018
LRCH4	0.090741675	-0.0075335	-0.09827517	0.03531353
LRP2	0.30487547	0.034939387	-0.26993608	0.037027538
LRRC57	-0.025921857	0.121793645	0.147715503	0.005928247
LST1	-0.131685333	-0.2686519	-0.13696656	0.029431047
MACROD1	-0.331899859	-0.13333367	0.198566194	0.011414292
MAMDC2	-0.143607426	-0.31152006	-0.16791263	0.044954525
MAN1A2	0.220719611	0.071287705	-0.14943191	0.00220098
MAP1LC3B	-0.145767289	-0.34985361	-0.20408632	0.009381025
MAP2K3	-0.014582556	-0.15928262	-0.14470006	0.013256361
MAP3K7	0.095415675	0.187544213	0.092128538	0.007910518
MARC1	0.001849572	-0.22107111	-0.22292068	0.019982689
MARF1	-0.041889888	0.064905618	0.106795506	0.01154966
MASTL	0.141831584	-0.01784633	-0.15967791	0.04004542
MBNL2	-0.005311401	0.149846954	0.155158354	0.029352214
MBOAT2	0.062759098	-0.17138122	-0.23414032	0.039232234
MCOLN1	0.023822455	0.151845062	0.128022607	0.038647858
MED13L	0.191043747	-0.0059607	-0.19700445	0.002534869
MEST	-0.056615007	-0.29465643	-0.23804142	0.002578371
MFS11	-0.115688475	0.07174288	0.187431355	0.029003178
MGAT1	0.154856682	0.026341721	-0.12851496	0.03076022
MID1	0.00033383	0.119510764	0.119176934	0.048612218
MME	-1.26640492	-0.70071989	0.56568503	0.008204069
MMP15	0.004988214	-0.12032149	-0.12530971	0.022992004
MMRN2	0.202138773	0.049203718	-0.15293505	0.007544631
MOXD1	0.015580709	-0.23471512	-0.25029583	0.041150036
MPHOSPH10	0.103248985	0.234354177	0.131105192	0.014523051
MRPS18C	-0.099193287	-0.31627419	-0.21708091	0.045622933
MRTFA	0.013048966	-0.12462562	-0.13767458	0.033541778
MS4A1	0.065530116	-0.07704668	-0.1425768	0.024058701
MTA1	0.139737579	0.020071468	-0.11966611	0.028462362
MTHFSD	0.024986151	0.186036975	0.161050824	0.003319408
MTMR10	-0.078327205	0.045981358	0.124308563	0.012228951
MTSS1L	-0.145347415	-0.03700316	0.108344254	0.044064291
MYL1	-0.4027591	-0.593902	-0.1911429	0.020040197
MYO1G	-0.061580327	-0.26190601	-0.20032569	0.016083238
MZB1	-0.512564087	-0.8933837	-0.38081961	0.011395846
MZT1	0.059541769	0.183137429	0.123595661	0.026531679
N4BP2L2	0.511571806	0.301509888	-0.21006192	0.03846066
NARS	0.092289801	0.212586092	0.120296292	0.007467148
NATD1	0.086153685	-0.04924729	-0.13540098	0.015470684
NAV1	0.080335875	-0.31208691	-0.39242278	0.005291206
NBEA	0.036335064	-0.13950402	-0.17583909	0.039515342

NCF1	-0.262996339	-0.49021156	-0.22721522	0.018877195
NCF2	-0.106427667	-0.25936304	-0.15293537	0.046338392
NCF4	-0.093144554	-0.24798949	-0.15484494	0.027392012
NDFIP2	0.004610478	-0.07682935	-0.08143983	0.026859433
NDUFA10	-0.26826974	-0.12876411	0.139505634	0.033940632
NDUFA5	-0.122387878	0.019332607	0.141720485	0.015178576
NDUFA7	-0.298308626	-0.13770427	0.160604359	0.046047181
NDUFA8	-0.20669191	-0.07675668	0.129935225	0.033909935
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NDUFB11	-0.253388328	-0.05449371	0.198894617	0.006421182
NDUFB3	-0.26161574	-0.05670686	0.204908878	0.009164932
NDUFB5	-0.196944905	-0.05170602	0.145238883	0.029210179
NDUFB7	-0.286944553	-0.15400976	0.132934792	0.045275257
NDUFB8	-0.221871754	-0.08106874	0.140803019	0.031762098
NDUFB9	-0.2042505	-0.07477704	0.129473458	0.040974047
NDUFC1	-0.387141268	-0.13527241	0.251868859	0.044551051
NDUFC2	-0.193860739	-0.03887899	0.154981749	0.034029584
NDUFS6	-0.347985224	-0.17326444	0.174720785	0.032126118
NDUFV1	-0.261707108	-0.13669012	0.125016993	0.036545365
NDUFV3	-0.049940631	0.130154715	0.180095346	0.040649848
NEDD4	0.082001998	0.269660974	0.187658976	0.012089767
NEMP1	0.067727847	0.219744704	0.152016857	0.034018588
NFXL1	0.037698077	0.20400141	0.166303332	0.038729652
NHEJ1	0.021118671	0.153536765	0.132418094	0.016467203
NINJ1	-0.063959356	-0.21519514	-0.15123578	0.041159957
NKIRAS2	0.04597437	0.186663263	0.140688894	0.005054708
NLRC4	-0.125184717	-0.30435285	-0.17916813	0.01259043
NMT2	0.003171235	0.158174099	0.155002864	0.046037904
NOC3L	0.073619436	0.225084083	0.151464647	0.019821167
NOL11	0.049371858	0.16305135	0.113679492	0.017280707
NOL7	0.207243175	0.336835546	0.129592371	0.025467368
NOLC1	0.130351963	0.313123425	0.182771461	0.0144299
NPY	-1.263546732	-1.03210055	0.23144618	0.04351677
NR1I2	-0.039900808	-0.1793116	-0.13941079	0.033942911
NRDE2	0.124547319	0.001299104	-0.12324821	0.01990359
NRP2	-0.062627277	-0.20241964	-0.13979236	0.013538836
NSFL1C	0.053938349	0.208141987	0.154203639	0.013639384
NSRP1	0.161073494	0.305279683	0.144206189	0.014684322
NT5C3A	-0.082561515	0.078402541	0.160964055	0.037040997
NUDT22	0.082535952	-0.03780092	-0.12033687	0.037393075
NUDT3	0.126394373	0.033898473	-0.0924959	0.043351558
NUFIP2	0.162898083	0.320409558	0.157511475	0.014970541
ORM2	-0.065205534	-0.23776294	-0.1725574	0.039005464
ORMDL2	0.063121615	-0.12009981	-0.18322142	0.005890183
OSTF1	-0.057692327	-0.15751599	-0.09982366	0.018647111
OTUD6B	0.052166067	0.156969216	0.104803149	0.037077855
P2RY12	-0.021500668	-0.13598156	-0.11448089	0.028791592
P3H3	0.080033869	-0.1264885	-0.20652237	0.030226041
PACSIN2	0.013477294	0.14973466	0.136257366	0.016466496
PAICS	-0.157698417	-0.01566178	0.142036636	0.047180834
PAK1IP1	0.123601863	0.260912063	0.137310199	0.033532498



PARVG	-0.062695887	-0.26639908	-0.2037032	0.006434258
PBRM1	0.163062067	0.022833142	-0.14022892	0.028416372
PBXIP1	-0.131067802	0.089398433	0.220466234	0.014260381
PCDHGB6	0.155446555	-0.00630887	-0.16175542	0.001114196
PCDHGC3	-0.078727933	-0.20677133	-0.12804339	0.037282326
PDCD11	0.100881584	0.215477692	0.114596108	0.045873938
PDE3A	-0.011673408	-0.16728166	-0.15560826	0.037496276
PDGFB	-0.078694203	-0.25472322	-0.17602902	0.012367755
PDLIM1	-0.055806962	0.130102955	0.185909917	0.008817477
PDZK1	0.060448784	0.302319873	0.241871089	0.020408307
PELO	0.047287359	0.161341984	0.114054624	0.044542669
PET117	-0.137713011	0.004475856	0.142188867	0.023434678
PHC3	0.131641108	0.283563114	0.151922006	0.031850949
PHF5A	0.114566693	0.254547438	0.139980745	0.033902669
PHYHIPL	-0.065974203	0.254700644	0.320674848	0.035420845
PIGL	0.076816953	-0.08942937	-0.16624632	0.045537127
PIK3CG	-0.000172061	-0.13239724	-0.13222518	0.044514896
PIP4P1	0.01391309	0.181907992	0.167994902	0.001898574
PITRM1	0.004920015	0.200337226	0.195417211	0.004865984
PLA2G12A	-0.259525741	0.002821118	0.262346859	0.002610448
PLA2G12B	-0.312517009	-0.08960617	0.222910839	0.019586087
PLA2G4A	-0.150428384	-0.32290567	-0.17247729	0.022041742
PLA2G6	-0.03596281	0.097604892	0.133567702	0.033696495
PLA2G7	-0.013282618	-0.25557776	-0.24229515	0.001518582
PLCD3	0.069272422	-0.04447688	-0.1137493	0.005540974
PLEKHA1	0.034117077	0.177056644	0.142939566	0.030885487
PLVAP	0.573217838	0.392042614	-0.18117522	0.049639447
POLM	-0.135192102	-0.28619953	-0.15100743	0.009552559
POLR1B	0.108568261	0.25337756	0.144809299	0.006596009
POLR2K	0.201308896	0.294856013	0.093547117	0.049341991
POMGNT1	0.237453202	0.110383781	-0.12706942	0.00895419
POMP	0.259000847	0.057066671	-0.20193418	0.021908543
POP4	0.187680915	0.103750477	-0.08393044	0.049041183
PPIA	-0.06216129	0.032604904	0.094766194	0.028694979
PPIL4	0.104019303	0.217391583	0.113372281	0.0143121
PPP1CC	0.14686684	0.017103298	-0.12976354	0.040542328
PPP2CB	-0.265388202	-0.02403449	0.24135371	0.003870085
PPP4R3A	0.192272471	0.081759471	-0.110513	0.024519779
PPP6R1	0.13160924	0.027259871	-0.10434937	0.017521062
PRAM1	0.039253874	-0.12836492	-0.16761879	0.011964315
PRKCQ	-0.134001736	-0.28105309	-0.14705135	0.032746384
PRKD1	0.106421601	-0.1227712	-0.2291928	0.00593976
PRMT2	-0.043859515	-0.12860702	-0.08474751	0.041820266
PRMT3	0.1123231	0.338648947	0.226325847	0.001615804
PRPF40B	0.245958819	-0.01660553	-0.26256435	0.000209158
PSMD4	0.038384564	0.099742105	0.061357541	0.025026426
PTBP1	0.037819963	-0.03893216	-0.07675212	0.03700275
PTGES	-0.643151725	-0.282245	0.360906723	0.022246025
PTGES3	0.025160228	0.166103284	0.140943057	0.007841296
PTK2	-0.023343722	0.12218297	0.145526692	0.013838487
PTK2B	-0.076471943	-0.2887161	-0.21224416	0.000643843

PTPN6	-0.0396959	-0.14323052	-0.10353462	0.044143388
PTPRB	0.019424399	-0.20924081	-0.22866521	0.045975718
PTPRCAP	-0.110479755	-0.4064725	-0.29599275	0.019499604
PTPRK	0.011795903	0.121049583	0.109253681	0.025311814
PTX3	-0.389996295	-0.63378306	-0.24378677	0.016143372
PXN	-0.022244525	0.043403602	0.065648127	0.046774141
PYHIN1	-0.133325683	-0.39479984	-0.26147415	0.015249507
RAB10	-0.023375127	0.116707744	0.140082872	0.004204697
RAB11FIP2	-0.052314801	0.068275676	0.120590477	0.005180136
RAB18	-0.065588715	0.122610033	0.188198747	0.006874132
RAB19	0.134444484	-0.17102522	-0.30546971	0.032893983
RAB1B	-0.059653288	0.027807402	0.087460691	0.045894645
RAB21	-0.066591996	0.04276024	0.109352236	0.019238713
RAB2A	-0.024101644	0.083805631	0.107907275	0.037382747
RAB39A	0.0556282	-0.13180921	-0.18743741	0.040218169
RAB3A	0.040469661	0.210419649	0.169949988	0.037711913
RAC2	-0.28026609	-0.53269858	-0.25243249	0.016092348
RAP1A	-0.335434789	-0.18064003	0.15479476	0.003365204
RAP1GAP	-0.144962064	0.083241599	0.228203663	0.040733203
RAPGEF1	0.093512642	0.004766525	-0.08874612	0.017245426
RASAL1	0.047382195	-0.08199812	-0.12938032	0.046106409
RASAL3	-0.022961731	-0.21242509	-0.18946336	0.002691832
RASSF2	-0.097678911	-0.33243636	-0.23475745	0.008994838
RBM19	0.077016828	0.215783681	0.138766853	0.00432589
RBM28	0.098584381	0.290946968	0.192362587	0.004960825
RBP2	-0.228966459	0.09479389	0.323760349	0.036182384
RCHY1	-0.084036032	0.070443987	0.154480019	0.005895881
RECQL	0.216356819	0.128377589	-0.08797923	0.047462297
REXO4	0.141704142	0.271319137	0.129614995	0.048944812
RGS18	-0.060584623	-0.13575885	-0.07517422	0.041995708
RHBDD3	0.221301579	0.095337593	-0.12596399	0.014798739
RHOB	-0.391571186	-0.20553486	0.186036325	0.043715145
RHOC	-0.087708398	0.068090539	0.155798937	0.034618317
RIC8B	0.187676002	0.043416487	-0.14425952	0.014023046
RICTOR	0.007276032	0.073468055	0.066192023	0.015606281
RIPOR2	0.029200594	-0.19455796	-0.22375856	0.008323087
RLF	0.451845916	0.151303608	-0.30054231	0.010159885
RMDN3	-0.139331629	0.052874938	0.192206567	0.000927073
RNF114	-0.046909453	0.103157371	0.150066824	0.014219592
RNF130	0.043248163	-0.1212534	-0.16450156	0.002664877
RNF5	0.125613834	0.25709722	0.131483385	0.044227947
RNH1	-0.242564861	-0.11934327	0.123221591	0.02119657
RNPEPL1	-0.021187187	-0.14073235	-0.11954517	0.016407783
RORC	0.159304147	-0.02331443	-0.18261857	0.012059783
RPL34	-0.009987696	0.075717548	0.085705244	0.046969485
RPL39	0.047906392	-0.13258116	-0.18048755	0.043943026
RPL5	-0.049532324	0.016201872	0.065734196	0.045115175
RPS10	0.089989887	0.043062825	-0.04692706	0.046595576
RPS12	-0.307721803	-0.08951993	0.218201874	0.009543699
RRM2B	-0.072751322	0.084968393	0.157719715	0.023555854
RRP8	0.066048363	0.190385441	0.124337079	0.017614546

RUFY1	0.090604725	0.261083019	0.170478295	0.008443523
RUFY2	0.062916561	0.230156926	0.167240366	0.018037249
RUNX3	0.14623292	-0.16045319	-0.30668611	9.53E-05
SBF1	0.014759268	-0.06571633	-0.0804756	0.041912486
SCAMP1	0.014168335	0.1551929	0.141024564	0.016630078
SCAMP3	0.143381965	0.384294761	0.240912796	0.001647365
SCRN3	-0.135382729	0.011630664	0.147013393	0.022775785
SDSL	-0.260426597	-0.57060518	-0.31017858	0.003296689
SEC11C	-0.013727783	-0.24715765	-0.23342986	0.013562298
SELENOM	0.011907304	-0.22377668	-0.23568398	0.046712386
SEMA4A	-0.075097761	-0.23689274	-0.16179498	0.027785038
SEPT1	-0.141035739	-0.3797992	-0.23876346	0.015518255
SEPT10	-0.172296045	-0.05321419	0.119081859	0.02167334
SERPINA11	-0.115588673	-0.36031053	-0.24472186	0.007248767
SERPINA4	0.06676272	-0.09124143	-0.15800415	0.02018939
SERPINA6	0.122859142	-0.00992632	-0.13278546	0.047418639
SERPINB10	-0.273595034	-0.46785732	-0.19426229	0.038812621
SERPINB9	-0.113433797	-0.27668427	-0.16325047	0.030140571
SESTD1	0.059555819	0.173653663	0.114097844	0.032033022
SETD1A	0.098869782	0.012001479	-0.0868683	0.017351906
SETD7	-0.01885925	0.10445286	0.12331211	0.038683704
SFR1	0.025823979	-0.05337688	-0.07920086	0.02495567
SH2D1A	-0.069513527	-0.28205189	-0.21253836	0.025863329
SHC1	0.1527684	0.297567696	0.144799296	0.041220264
SHF	-0.14882458	0.032934767	0.181759346	0.030247258
SKAP1	-0.06309872	-0.35002777	-0.28692905	0.001009385
SKAP2	-0.105020742	-0.33054693	-0.22552619	0.00073154
SLAMF6	-0.008482073	-0.12201436	-0.11353229	0.006538657
SLAMF7	-0.000683401	-0.17016404	-0.16948064	0.010616833
SLC15A4	-0.058029794	0.079550169	0.137579963	0.041202793
SLC16A7	-0.303711395	-0.00420353	0.29950787	0.042053413
SLC1A3	0.133964926	-0.1354197	-0.26938463	0.017563705
SLC22A7	-0.253994538	-0.54891656	-0.29492202	0.002139604
SLC35B3	0.33279254	0.183329186	-0.14946335	0.022111876
SLC35F6	-0.016681318	0.142393323	0.159074641	0.041526933
SLC38A9	0.016247871	0.167628645	0.151380773	0.034523945
SLC41A2	0.153773798	-0.03965736	-0.19343116	0.011582256
SLC43A3	0.136058674	-0.11644289	-0.25250157	0.006840242
SLC44A1	-0.090860348	-0.23391213	-0.14305178	0.001398962
SLC48A1	-0.3605338	-0.1969906	0.163543196	0.047347184
SLC5A1	0.021813138	-0.08395712	-0.10577026	0.020503532
SLCO2A1	0.432767739	-0.01958436	-0.4523521	0.001639144
SLFN11	0.011978057	-0.12752113	-0.13949919	0.03858457
SLK	-0.004608527	0.130165541	0.134774068	0.011538839
SMAD3	0.119765127	0.264929103	0.145163976	0.03574657
SMIM24	-1.434129703	-0.99056753	0.443562172	0.014882028
SMLR1	-0.071396684	0.127889749	0.199286433	0.045678954
SMS	-0.220100102	-0.0466676	0.173432507	0.004228268
SMYD3	0.156387568	0.334861148	0.17847358	0.019744252
SNAPC4	0.015733967	0.160998815	0.145264848	0.045322481
SNCG	-0.582299899	-0.09191298	0.490386923	0.025012174

SNRPC	0.040048417	0.198058906	0.158010489	0.011061063
SNTB1	-0.017634935	0.1110657	0.128700635	0.012215187
SNX24	-0.02874945	0.099026595	0.127776045	0.042085986
SNX8	-0.03582781	0.080221866	0.116049675	0.046955831
SORBS1	-0.405188778	-0.27782496	0.127363813	0.014998466
SOS2	0.076470728	-0.0253159	-0.10178663	0.023461667
SOWAHC	-0.10721696	0.041529388	0.148746347	0.008583038
SP1	0.013982902	0.183493348	0.169510445	0.00580011
SP3	-0.007806427	0.125346866	0.133153293	0.041531443
SPCS3	-0.103737294	-0.21619422	-0.11245693	0.035858301
SPRYD7	-0.011639926	0.105891954	0.11753188	0.024381764
SRFBP1	0.162376171	0.350911473	0.188535302	0.005626964
SRI	-0.020943129	-0.18612737	-0.16518424	0.038752562
SRPX	-0.881804506	-1.14512693	-0.26332243	0.025788305
SRR	-0.300303698	-0.52460123	-0.22429753	0.016336418
SRXN1	-0.080997341	0.175136094	0.256133435	0.037945857
SSH1	0.051289689	-0.11093177	-0.16222146	0.008479929
SSX2IP	-0.131495611	0.073110258	0.204605869	0.049140095
ST13	-0.024836205	0.11141664	0.136252845	0.025604887
STAM	0.079493863	0.168332565	0.088838702	0.025701702
STAM2	0.085030693	0.178189743	0.09315905	0.046738864
STAMBP	0.025765631	0.133231462	0.107465831	0.007248387
STAT2	0.125901124	0.006864527	-0.1190366	0.033934648
STAT5A	0.052170602	-0.12988432	-0.18205492	0.003438851
STAT5B	0.011475966	0.125623924	0.114147958	0.021384633
STK3	-0.121635115	0.104787453	0.226422568	0.002584114
STRADB	-0.15540901	0.070787193	0.226196203	0.026534655
SULT1A2	-0.512177468	-0.77233676	-0.26015929	0.038372387
SUN2	0.157193309	-0.04634381	-0.20353712	0.001423218
SYNE3	0.040768224	-0.05656876	-0.09733698	0.035432282
TAB3	0.038143076	0.186885313	0.148742238	0.013929007
TAGLN3	0.108125896	0.006919393	-0.1012065	0.0299597
TANC2	0.168990181	0.03847145	-0.13051873	0.028522842
TARSL2	-0.064202028	0.073729209	0.137931237	0.022210074
TBC1D10C	-0.029437872	-0.27778414	-0.24834627	0.002238799
TBC1D15	-0.079368682	0.00027502	0.079643702	0.040356105
TBC1D20	0.090212165	0.222803772	0.132591607	0.030197067
TBC1D22B	0.01511004	0.117977336	0.102867297	0.040746682
TBC1D2B	0.129029225	0.031241842	-0.09778738	0.045725748
TBC1D9	0.080998231	-0.03479138	-0.11578961	0.025829999
TBK1	0.028397809	0.091428707	0.063030898	0.048996662
TBL1X	0.055012043	0.163527212	0.108515169	0.032105121
TCP1	-0.070359938	0.032290704	0.102650642	0.010634123
TDO2	-0.619745929	-0.8842371	-0.26449118	0.030241458
TERF2	0.129718191	0.223074466	0.093356275	0.042513212
TGFBR1	0.085032588	-0.08165766	-0.16669025	0.012592834
TGFBR2	0.043158474	-0.064222	-0.10738047	0.021774595
THAP12	0.120057177	0.036574759	-0.08348242	0.045095267
THEM6	-0.112476519	0.07023834	0.182714859	0.007213193
THEMIS	-0.05536552	-0.29796795	-0.24260243	0.000690512
TLCD2	0.124716313	-0.03558332	-0.16029963	0.011033752

TMC6	-0.043365494	-0.2911582	-0.24779271	0.010391216
TMC04	-0.164687409	-0.05537342	0.109313992	0.024620571
TMEM109	-0.124869597	-0.01021493	0.114654662	0.040531704
TMEM131L	0.046487075	-0.06470871	-0.11119578	0.035763105
TMEM173	-0.061238663	-0.26708598	-0.20584731	0.004666491
TMEM176B	0.234121836	0.07164121	-0.16248063	0.013272808
TMEM192	-0.197884184	-0.03164713	0.166237057	0.013907651
TMEM230	0.056250758	0.212326472	0.156075714	0.028138987
TMEM259	0.049908291	-0.07140502	-0.12131331	0.018482297
TMEM260	0.039559887	-0.12158892	-0.16114881	0.011583455
TMEM30A	-0.092421599	-0.21209208	-0.11967048	0.004367886
TMEM59	0.178246034	-0.00187865	-0.18012469	0.018545424
TMEM69	0.199502274	0.066246626	-0.13325565	0.045908068
TNFAIP2	-0.156015016	-0.27614126	-0.12012625	0.04657691
TNK2	0.062072229	-0.0767534	-0.13882563	0.002659173
TOR1A	0.083316258	-0.03358576	-0.11690202	0.017735077
TPBG	-0.118691327	-0.29089392	-0.1722026	0.031806409
TPST1	0.119666581	-0.06524178	-0.18490836	0.039020244
TRAF1	0.028040041	-0.17177769	-0.19981773	0.009572101
TRMT5	0.273825568	0.174655615	-0.09916995	0.046488198
TRPM4	0.069354119	-0.15896412	-0.22831824	0.000955101
TSC22D2	0.117977744	0.225256846	0.107279102	0.015788963
TTC8	0.07133253	-0.03779569	-0.10912823	0.029843579
TTR	0.010372181	-0.15369854	-0.16407072	0.04157017
TUBA3C	-0.448360765	-0.93073631	-0.48237554	0.029421534
TUBB6	0.102519159	-0.02487097	-0.12739013	0.03698882
TXN	-0.092764359	0.088224536	0.180988896	0.030895041
TXNDC15	0.175759199	0.051596971	-0.12416223	0.010772734
TXNIP	-0.030241497	-0.29353255	-0.26329105	0.002426675
TXNL4B	-0.095616868	0.019105635	0.114722502	0.045894349
TYMP	0.030614983	-0.21840668	-0.24902166	0.003184207
UBA52	-0.060158208	0.150016388	0.210174597	0.048699596
UBA7	0.082612383	-0.08215349	-0.16476587	0.00691595
UBAP2L	0.188072798	0.333344325	0.145271527	0.009723064
UBASH3A	0.268707086	0.078205232	-0.19050185	0.01078753
UBE2G2	-0.022737209	0.106891678	0.129628886	0.011591395
UBE2R2	0.013878105	0.123873969	0.109995864	0.041209363
UGT1A6	-0.392233213	-0.07678613	0.315447085	0.017306415
UGT2A3	-0.410777193	-0.19914507	0.211632119	0.043722367
UGT2B7	-0.974074748	-1.23142888	-0.25735413	0.015066411
UNC13D	-0.173291973	-0.29825693	-0.12496496	0.031989793
UPF3B	0.155755879	0.258881473	0.103125594	0.036302544
UROS	-0.13767941	-0.0054682	0.132211212	0.009856599
USP38	-0.0115027	-0.16588274	-0.15438004	0.025212205
USP4	0.047230753	-0.06103723	-0.10826798	0.013723147
UTP15	0.113119715	0.208634642	0.095514926	0.040727302
VAPA	-0.02609107	0.124738457	0.150829527	0.001645818
VDAC2	0.026697149	0.228875691	0.202178542	0.002529493
VPS11	0.090187434	0.144844231	0.054656797	0.042407546
VPS16	0.07213767	0.146345879	0.074208209	0.012753495
VPS26A	-0.010337294	0.125734631	0.136071925	0.001191334

VPS33A	0.086931084	0.146932002	0.060000918	0.040561723
VPS39	0.08668525	0.148342736	0.061657487	0.032874722
VPS41	0.067405985	0.17146385	0.104057865	0.003520761
VTA1	-0.066784435	0.047179497	0.113963932	0.032942623
VWA1	0.392289034	0.194067887	-0.19822115	0.006018798
VWF	0.069115998	-0.11915195	-0.18826795	0.018369881
WAS	-0.125897414	-0.35969397	-0.23379656	0.021453574
WASHC1	0.040604491	0.141634005	0.101029514	0.016061976
WASHC2A	-0.132884358	0.039568495	0.172452854	0.002840848
WASHC2C	-0.028586135	0.105115794	0.133701929	0.001733063
WASHC3	-0.055266404	0.097872038	0.153138442	0.000395737
WASHC4	0.018027525	0.120107837	0.102080312	0.011054407
WASHC5	-0.004423843	0.092595973	0.097019816	0.019556305
WBP2	-0.128259128	0.059771159	0.188030287	0.029630694
WDFY1	-0.118077062	-0.02243253	0.095644536	0.040728118
WDFY3	-0.085281652	-0.16452984	-0.07924819	0.048216153
WDFY4	-0.040418401	-0.2003037	-0.1598853	0.030513253
WDR11	0.060231214	0.159050123	0.098818909	0.014134489
WDR12	0.072618651	0.238600979	0.165982328	0.033937243
WDR61	0.085598451	0.171177493	0.085579042	0.014180634
WIPF1	-0.029732951	-0.19802848	-0.16829553	0.014079221
XPNPEP1	-0.101683486	0.023972392	0.125655879	0.003662868
YTHDF3	0.171546388	0.281912692	0.110366304	0.036976971
ZAP70	-0.048151337	-0.35951833	-0.31136699	0.002531431
ZFYVE19	-0.084261568	0.087503913	0.171765481	0.015928842
ZHX2	0.013300287	0.144257079	0.130956791	0.015982885
ZNF622	0.028463695	0.253898332	0.225434637	0.003365203
ZNF787	0.298946698	0.158446433	-0.14050026	0.043034326
ZSWIM8	0.002524775	0.057867255	0.05534248	0.045418441

Abbreviations: FC, fold chang.

**Supplementary Table 2**

Gene	KM
ALG10	0.002047382
APOBEC3C	0.006967025
APOL3	0.019174064
ASB8	0.030354209
ASNA1	0.008554407
ASPH	0.009654376
BAHCC1	0.003369889
C9orf40	0.014931787
CALCRL	0.009489616
CD3EAP	0.016905757
CD8A	0.007571125
CIAPIN1	0.032020017
CLIC2	0.000555203
DDX21	0.041745617
DIRC2	0.00356446
EIF3I	0.013208075
ERG	0.008995759
ESF1	0.002419382
IARS	0.004672395
KIF13A	0.024968416
MAP3K7	0.001276354
MMRN2	0.022999348
NCF1	0.024451307
PACSLN2	0.009084952
PLVAP	0.005199007
POMP	0.008904579
RAP1GAP	0.011477482
REXO4	0.022746002
RNF130	0.00027666
RUFY1	0.003399998
RUNX3	0.004318812
SCAMP3	0.006881416
SKAP2	0.004513576
SLCO2A1	0.012928579
STK3	0.000452266
TBC1D9	0.040377577
TMEM230	0.021005759
USP4	0.000706751
VWA1	0.001761682

Abbreviations:KM,Kaplan-Meier.

Supplementary Table 3

Gene	HR	P value
ALG10	0.111681218	0.003493918
APOBEC3C	0.353188201	0.035597522
APOL3	0.386738155	0.005198606
ASB8	0.197428451	0.031390254
ASNA1	6.621781545	0.005567426
BAHCC1	2.252122024	0.020940142
C9orf40	4.123130344	0.00121559
CALCRL	0.27839483	0.004346633
CD3EAP	4.171078233	0.005157376
CD8A	0.346424176	0.004105118
CLIC2	0.109475656	0.000716262
DIRC2	0.342103766	0.015283997
EIF3I	14.48201616	0.010857292
ESF1	5.242044706	0.000287598
IARS	4.80973501	0.021320416
MAP3K7	6.888993928	0.04130563
MMRN2	0.238662228	0.03122259
PACSLN2	3.298583821	0.035910653
PLVAP	0.22052234	0.001821052
POMP	0.282342116	0.007161283
RAP1GAP	2.469781236	0.000696933
REXO4	2.880334439	0.021646202
RNF130	0.164760211	0.012306407
RUFY1	4.550608905	0.004651253
RUNX3	0.259243458	0.002047488
SCAMP3	3.713187049	0.003853329
SKAP2	0.327142919	0.042812526
SLCO2A1	0.445277684	0.001380345
STK3	3.030188961	0.007281258
TMEM230	3.565837786	0.008663944
USP4	0.123939844	0.009634535
VWA1	0.256128811	0.010793795

Abbreviations:HR,hazard ratio.



## Supplementary Table 4

Gene	HR	P value
ALG10	0.079321887	0.001955648
APOL3	0.363260819	0.004242466
BAHCC1	3.253910066	0.009514329
CD3EAP	5.435108067	0.002856413
CD8A	0.424378205	0.024346891
CLIC2	0.162111343	0.007562682
DIRC2	0.271378493	0.010567434
ESF1	3.679003637	0.007427393
PACSIN2	3.447847547	0.031541932
PLVAP	0.368048665	0.041550026
POMP	0.378596101	0.044059691
RAP1GAP	2.274827501	0.007316721
RNF130	0.180732821	0.014414884
RUFY1	4.039855194	0.012503993
RUNX3	0.345414695	0.024465384
SCAMP3	2.911535921	0.031963526
STK3	2.933489647	0.014924081
TMEM230	4.414392206	0.004300867

Abbreviations:HR,hazard ratio.