

Table S5

Gene	NASH	HCV	DAA
DPPA4	-0.99149595	-1.50988763	-1.85278329
RP11-423H2.	-0.94754738	-1.48155106	-1.11587793
ABCC6P2	-1.24512898	-1.44208662	-2.39711258
KCNN2	-0.76184643	-1.39228038	-1.7513016
CLRN1-AS1	-0.96441909	-1.3557784	-2.29260612
GYG2	-0.69968025	-1.26305098	-1.3847502
RP11-205M3.	-0.66576087	-1.19639311	-1.37080583
AC114730.3	-0.95312175	-1.15783489	-1.41981494
U91319.1	-0.59765221	-1.15552389	-1.66908975
CES5A	-0.58376485	-1.15154589	-1.42235949
PZP	-0.69107133	-1.14231349	-1.13357456
RP3-475N16.	-1.13779469	-0.98193217	-1.81156881
AGXT	-1.12923854	-0.75283994	-2.05127195
HORMAD2	-1.09406334	-1.11939868	-1.61383914
CAPN3	-0.85622675	-1.11518713	-1.31023632
RP11-164J13	-0.85622679	-1.11518708	-1.31023669
GNMT	-1.1093108	-1.01696047	-1.6901446
NEU4	-0.9270435	-1.10879394	-1.33998638
SLC6A13	-0.90009565	-1.09119231	-1.73221824
RP11-626H12	-0.84179363	-1.07827663	-1.43341265
GCK	-1.06523593	-0.86809113	-1.72219608
KANK4	-0.74251028	-1.0564263	-1.26112939
LPA	-0.49306007	-1.0169621	-1.08914008
CNDP1	-0.63792646	-0.9987607	-1.29617838
CYP1A2	-0.98668091	-0.81786809	-1.53832415
AOC1	-0.53624729	-0.98432856	-1.19240338
MAD1L1	-0.97826581	-0.87221391	-1.1756736
CHRNA4	-0.81746823	-0.96924072	-1.78045746
RP11-261N11	-0.81746808	-0.96924071	-1.78045763
ESPNL	-0.94309271	-0.70166788	-1.03301781
TMTC1	-0.4180584	-0.94205862	-1.15413525
GSTA2	-0.93792451	-0.88896097	-1.55863558
ACSM2B	-0.91701906	-0.89974648	-1.93800712
MROH7	-0.89045029	-0.91423505	-1.58878586
SLC2A4RG	-0.9095737	-0.59876869	-1.2791541
LIME1	-0.90957369	-0.59876869	-1.27915412
NAT2	-0.48889312	-0.90882634	-1.30657392
APOC3	-0.89246412	-0.45008406	-1.66710107
APOA1	-0.89246411	-0.45008404	-1.66710121
GCGR	-0.89023552	-0.62501281	-1.23468787
ACADS	-0.78259387	-0.88482951	-1.08998749
IGFALS	-0.88450169	-0.6259388	-1.33663839
CPNE6	-0.87891263	-0.80760341	-1.53001471
THOP1	-0.86939272	-0.74055984	-0.88881774
GCDH	-0.86451674	-0.61958447	-0.93363663
FAM151A	-0.83402025	-0.85612392	-1.53880613
LINC00844	-0.64764145	-0.84587488	-1.56903563
AOX1	-0.43160766	-0.84293406	-0.90263577

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TBX3	-0.63799608	-0.84108221	-0.96479587
TRIM55	-0.41269109	-0.84011324	-1.14649365
SLC22A25	-0.61387539	-0.83916424	-0.91455095
RBP4	-0.83168116	-0.72002451	-1.58098516
RP11-6B4.1	-0.48612421	-0.82930402	-1.48049229
PRODH2	-0.82671595	-0.78277324	-1.50147134
CXXC4	-0.49948404	-0.82209373	-1.0180244
ORM2	-0.48125488	-0.82026193	-0.88757303
CNPY3	-0.81711475	-0.71387346	-1.11737049
PPP1R32	-0.81701208	-0.54806826	-1.5146204
FITM1	-0.6639242	-0.81316963	-0.9421442
C1orf226	-0.72632656	-0.81225523	-1.51134647
PDLIM1P4	-0.44372511	-0.81068592	-1.17054558
C3P1	-0.67831697	-0.80805497	-1.29270777
ETNK2	-0.80482527	-0.67150957	-1.39308408
CES1P1	-0.79369268	-0.80408941	-1.17463066
NAGS	-0.80097203	-0.71944772	-1.24758996
ZGPAT	-0.79965053	-0.51234221	-1.04955075
FADS6	-0.73288221	-0.79342869	-1.35845648
HAO2-IT1	-0.59955733	-0.79336794	-1.43827604
MAGI2-AS3	-0.35584842	-0.78285799	-0.53918388
SLC7A9	-0.78097086	-0.76962553	-1.26189777
GFRA1	-0.55440634	-0.78061658	-1.06561411
CTD-2529O2	-0.53112617	-0.78012415	-1.00553518
MEX3A	-0.522985	-0.77832605	-0.90958064
TYK2	-0.65803804	-0.7777852	-0.73737827
MOGAT2	-0.71494902	-0.77733915	-1.48521321
SMO	-0.69834739	-0.77436359	-1.23571814
RP11-475O6	-0.49405245	-0.77418792	-0.79077968
RP11-115J16	-0.55973102	-0.77241533	-1.26192931
ALDH1L1-AS	-0.63925942	-0.77040614	-1.27061083
WFIKKN1	-0.76945835	-0.60842709	-1.22210899
FAM35BP	-0.72495655	-0.76611146	-1.52823847
RP11-38L15.8	-0.72495294	-0.76610895	-1.52823932
SERPINC1	-0.64231174	-0.75788513	-1.26126948
GPER1	-0.73874659	-0.7562845	-1.22583216
FAM99B	-0.75424502	-0.63999416	-1.12890307
TSC2	-0.75369796	-0.6199147	-0.99065949
RP11-122K13	-0.75356381	-0.54125037	-1.26026251
PRAP1	-0.75356381	-0.54125041	-1.26026272
FUOM	-0.75356381	-0.54125046	-1.26026303
CHAD	-0.74741586	-0.49513365	-1.22492178
APOC2	-0.7450738	-0.54355247	-1.3219583
SLCO1B3	-0.58591714	-0.7442032	-1.29189172
ALDH1L1	-0.59999491	-0.74407132	-1.20941092
FMO3	-0.49424232	-0.74299001	-1.27893186
TM6SF2	-0.73970533	-0.62457193	-1.41735459
RP11-7F17.3	-0.73628466	-0.7269955	-0.68819543
RP11-830F9.5	-0.7359723	-0.57756223	-1.39860393

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RP11-119D9.1	-0.66797538	-0.73584138	-1.46102738
ECHDC3	-0.73574499	-0.64695488	-0.91347761
GJB1	-0.73271966	-0.71216975	-1.46182153
GSTA7P	-0.69554599	-0.72836277	-1.21399129
C11orf95	-0.66759182	-0.72831986	-1.09604871
LINC01018	-0.72663526	-0.4670925	-0.81163689
CTD-2227E11.1	-0.72581509	-0.72646364	-1.27667558
HAGH	-0.7241312	-0.56129832	-1.15793053
RP11-372E1.1	-0.48838126	-0.72382996	-1.17599186
RP11-706C16.1	-0.72151361	-0.67126525	-0.99592848
JAKMIP2	-0.59190911	-0.71988615	-1.42416667
AP006216.5	-0.71728566	-0.60883583	-1.47977504
HPX	-0.53134133	-0.71341157	-0.96152571
ALB	-0.61593953	-0.71214067	-1.56518342
RP5-881L22.6	-0.71205592	-0.62633386	-1.35445049
PLEK2	-0.58279018	-0.71204221	-1.04019715
HGFAC	-0.51325387	-0.71165281	-0.83038664
ASB13	-0.70086639	-0.71154238	-1.03620588
GSTA1	-0.71032899	-0.64856362	-1.63938641
DGAT2	-0.70679534	-0.70974109	-1.32097732
NAT1	-0.70961995	-0.68535333	-1.44484818
RP1-152L7.5	-0.60024854	-0.7088288	-0.99394527
GALK1	-0.6524941	-0.70208265	-0.49504543
RP11-260M19.1	-0.7011436	-0.6485646	-1.68136973
AC005077.7	-0.46807058	-0.7006907	-1.3572382
EFNA2	-0.49300466	-0.69998303	-0.78766583
LYNX1	-0.69971324	-0.67462418	-0.85900698
C10orf11	-0.29734433	-0.69480888	-0.91639045
RP11-659E9.1	-0.66184955	-0.69454529	-1.22709775
CECR2	-0.54792984	-0.69282446	-1.30188277
APOA5	-0.68897857	-0.46835311	-1.1386494
INS-IGF2	-0.68669973	-0.61636774	-0.86849906
SLC10A1	-0.68208719	-0.60260581	-1.37614137
TMPRSS6	-0.67892758	-0.46227989	-1.17699527
CTC-575D19.1	-0.50301008	-0.67783699	-1.06299641
SCP2	-0.54729091	-0.67775912	-1.13600658
NR1I2	-0.67700905	-0.62030923	-1.42465198
ABAT	-0.33331643	-0.67659891	-0.72997478
ECHDC2	-0.54473282	-0.67350042	-1.13276754
PON3	-0.58047417	-0.6721999	-1.10846031
HAO2	-0.58929896	-0.6716787	-1.3346332
SLC22A7	-0.66730949	-0.51135093	-1.36656471
SLC9A3R2	-0.66600375	-0.49863254	-1.0694313
GRHPR	-0.6657719	-0.47558544	-1.21535632
PLG	-0.52855394	-0.66518177	-1.24898605
AZGP1	-0.62395669	-0.66494299	-0.91606595
PCSK9	-0.60364697	-0.66493919	-1.1202445
NTHL1	-0.66491983	-0.49255849	-1.07051067
APOE	-0.66305233	-0.48365476	-1.08114481

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F2	-0.46835274	-0.66110168	-0.6426977
DFFB	-0.61016315	-0.66016317	-0.75920127
MFSD3	-0.65447539	-0.44261957	-0.98623709
GPT	-0.65447539	-0.44261959	-0.98623703
SMLR1	-0.52661369	-0.6541607	-1.28901917
PPP1R1C	-0.48262948	-0.65398528	-1.08084799
SULT1A1	-0.65307806	-0.54881671	-1.05816353
SLC25A34	-0.65212305	-0.54308214	-1.21652379
MGMT	-0.46699718	-0.65200609	-0.80783134
ZNF511	-0.65139548	-0.4622824	-0.97964713
TMEM105	-0.55302581	-0.65100671	-0.69742329
HSD17B10	-0.65077375	-0.54606299	-0.86262797
RP3-339A18.	-0.65077365	-0.54606314	-0.86262813
SERPINF2	-0.61094679	-0.65017548	-0.90880042
FBLN7	-0.65001246	-0.38974033	-0.84264616
SLC39A5	-0.64976858	-0.55007742	-1.42634813
RP13-650J16	-0.6478358	-0.3982245	-0.86330101
DCXR	-0.64783579	-0.39822448	-0.86330123
TPCN2	-0.64773178	-0.59461018	-0.81270808
PON1	-0.59295438	-0.64760568	-1.22346607
FAHD1	-0.64633858	-0.48634266	-1.06892258
AZGP1P2	-0.64485418	-0.53287999	-1.03790934
TRABD2B	-0.47722253	-0.64321508	-1.0477239
C2orf72	-0.5594156	-0.6418142	-1.05957748
GNA11	-0.57685342	-0.64092872	-0.62347579
HAAO	-0.6387934	-0.45134397	-1.04918518
THAP3	-0.50147004	-0.63719817	-0.68699359
SLC38A3	-0.63662377	-0.36577035	-1.26974708
AP006285.7	-0.63650096	-0.51105337	-1.14691945
RP11-223I10.	-0.57321173	-0.6353221	-1.12373571
MSRB1	-0.4839175	-0.63462722	-0.80628716
SEMA4G	-0.63420912	-0.46527582	-1.34926534
UGT2B7	-0.34735527	-0.63379328	-1.07350275
COL18A1	-0.633764	-0.48613968	-0.95981257
TTR	-0.60446147	-0.63364811	-1.51161646
GC	-0.29478957	-0.6335266	-0.91682405
SLC6A12	-0.6333656	-0.45859746	-1.29275872
HPGD	-0.4128829	-0.63133765	-0.96652053
SKP2	-0.35220983	-0.62910207	-0.89282635
LCAT	-0.62813838	-0.51929613	-0.91120887
TP53I13	-0.62703429	-0.37204121	-0.55580171
CES3	-0.58736479	-0.626415	-1.22109327
KLF15	-0.62635639	-0.45928035	-0.88625961
HSD17B6	-0.52637047	-0.62578294	-1.09214608
MASP2	-0.62540411	-0.45429021	-0.8030727
FTCD	-0.62522253	-0.38500405	-0.92207527
ABCC6P1	-0.62509976	-0.38452141	-1.2908723
TDO2	-0.35564566	-0.62458298	-0.89964827
PSAT1	-0.54753136	-0.62300561	-0.78303332

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AC016768.1	-0.38420885	-0.62272919	-1.08430264
ESRP2	-0.6218496	-0.48248855	-0.95106257
REXO1	-0.56277739	-0.62150134	-0.865069
WNK3	-0.62106763	-0.34570911	-0.68593648
GYS2	-0.41303876	-0.62103511	-1.16140983
SULT1A2	-0.62028062	-0.48991151	-1.03461752
TOMM40	-0.61989376	-0.43165585	-0.93937417
GRB14	-0.4458305	-0.61988769	-1.03073991
ALDH7A1	-0.46238695	-0.61876846	-0.87211003
SEC14L4	-0.61755403	-0.41089817	-1.19215269
MLXIPL	-0.6175478	-0.54816044	-0.98229235
RAC3	-0.61724767	-0.35175161	-0.78326802
NUGGC	-0.44890558	-0.61652604	-1.02383009
RTP3	-0.61626652	-0.54756019	-1.32674011
CES1	-0.61619799	-0.41731858	-1.21693951
RFNG	-0.61435967	-0.50350499	-0.74124704
GPS1	-0.61435961	-0.50350491	-0.74124734
PPP1R16A	-0.61345434	-0.41105207	-0.93078596
TTBK1	-0.60395821	-0.61324208	-1.17563254
KLHDC10	-0.61303155	-0.60010566	-1.5872218
RP5-834N19.	-0.51365436	-0.61200935	-1.27007645
GAMT	-0.61187939	-0.36664478	-0.71033291
IYD	-0.50358548	-0.61132638	-1.12877964
MPST	-0.6108748	-0.54581605	-1.13556656
RP11-418J17	-0.57473442	-0.61052084	-1.21267473
CPN2	-0.48459523	-0.6103631	-0.79009217
PSMB7	-0.40820418	-0.61021229	-0.83422211
SPP2	-0.56862656	-0.60999811	-0.92182258
HFE2	-0.46933974	-0.60889644	-0.85388126
DMRTA1	-0.51210504	-0.60876512	-1.07467166
SORD	-0.58079901	-0.60821283	-1.00300526
XAB2	-0.60789085	-0.53251592	-0.91315249
GPRC5C	-0.60748968	-0.58039232	-1.06113179
ACOT6	-0.60734884	-0.41927042	-0.81412779
NRBP2	-0.6050793	-0.55679106	-0.85775185
ABCC11	-0.40158633	-0.60456873	-0.82618026
PGRMC1	-0.47252679	-0.60425638	-0.96098919
FES	-0.42565685	-0.60271729	-0.49213319
TMEM176A	-0.46405227	-0.60127865	-0.6353846
MBL2	-0.53147691	-0.60088917	-1.25572526
SLC16A2	-0.33244141	-0.60064312	-0.56853879
ADH1B	-0.43132286	-0.60005989	-1.19573949
TDGF1	-0.41829492	-0.59947195	-0.94450355
ACSM5	-0.4846508	-0.59940731	-1.11552476
DHTKD1	-0.59913906	-0.4510699	-1.06624861
ANPEP	-0.39222731	-0.59797437	-0.87571829
AP000695.6	-0.59793891	-0.58609996	-1.28444227
TMEM110-MU	-0.48091903	-0.59739318	-0.73701587
MIR3646	-0.5959499	-0.52518315	-1.14348719

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NUDC	-0.59416921	-0.54419999	-0.89742284
TMEM176B	-0.45821951	-0.59377894	-0.62598657
DGAT1	-0.59367306	-0.38374643	-0.75238443
ASGR2	-0.57713067	-0.59260218	-1.03735592
NLRP14	-0.47829452	-0.59257624	-0.80707851
RAVER1	-0.58965445	-0.56794636	-0.59136094
RAPSN	-0.44810686	-0.58914135	-0.91178852
KHK	-0.58850678	-0.47178375	-0.96758288
NBPF13P	-0.52308524	-0.58820299	-1.01997984
SLC43A1	-0.58716714	-0.48673092	-0.99146427
HNF1A	-0.58703441	-0.43191851	-1.30314598
PQLC1	-0.51128552	-0.58518879	-0.87524015
LRRC3	-0.58506819	-0.33908631	-0.96210778
LRRC3-AS1	-0.58506818	-0.33908633	-0.96210767
CHID1	-0.52113529	-0.58487534	-0.85719333
KLKB1	-0.49699917	-0.58477479	-1.12678624
HSD17B14	-0.58311868	-0.52414515	-0.8902756
MGST1	-0.44586517	-0.58266921	-1.18824352
ARID3C	-0.58266304	-0.51941336	-1.20230419
CAT	-0.58201229	-0.48705715	-1.24993905
RP11-252E2.	-0.58143053	-0.56129588	-1.04494071
ACOX2	-0.5805449	-0.51146067	-1.20268726
RP11-696N14	-0.44797812	-0.58037082	-1.23646599
GLYAT	-0.41431923	-0.57973952	-0.97656553
NR2F6	-0.5793919	-0.40638654	-0.86113452
C1orf115	-0.49538995	-0.57895323	-0.77655932
SNED1	-0.57740037	-0.40034854	-0.80600899
SCG5	-0.50820222	-0.57715739	-0.9681705
NIT2	-0.52382134	-0.57681417	-1.11724769
TST	-0.57610113	-0.47748132	-1.06213664
GGACT	-0.29750282	-0.57565388	-0.67641995
GSTZ1	-0.57416671	-0.49594461	-0.85040604
MRPL43	-0.57393552	-0.38562571	-1.12234897
SLC27A5	-0.57384955	-0.36274605	-0.80451704
BCAT2	-0.57362287	-0.4821496	-0.7995547
POLE	-0.5734815	-0.36457824	-0.93992892
SERPINA4	-0.45149394	-0.57326362	-0.99086094
ABCG8	-0.57311013	-0.43992538	-1.26841747
TEF	-0.57245391	-0.41824675	-0.83097713
LBX2	-0.54741405	-0.571731	-0.90272755
LBX2-AS1	-0.54741406	-0.57173079	-0.90272749
RP11-523H20	-0.54741405	-0.57173062	-0.90272723
BPHL	-0.37664424	-0.57086038	-0.7983163
PACSLIN3	-0.51016493	-0.569775	-0.64726667
ASPG	-0.5695377	-0.44994196	-0.86705129
SERPINA5	-0.37963361	-0.56949765	-0.91182953
CA14	-0.56920372	-0.47864338	-1.22421002
GGH	-0.30389191	-0.56847041	-0.64654806
AKR1D1	-0.46639569	-0.56766263	-1.01148044

Table S5

HNF1A-AS1	-0.56746377	-0.42809642	-1.30517466
PKD1	-0.56703768	-0.35638666	-0.47364936
C8orf82	-0.56627989	-0.3824422	-0.5843929
TTC36	-0.55970467	-0.56589728	-1.0625555
CLDN14	-0.51014848	-0.5653727	-1.17478053
PROC	-0.46263394	-0.56342543	-0.99796948
HNF4A	-0.56170072	-0.52228426	-1.07535176
KCTD21-AS1	-0.37965635	-0.56160309	-0.77831421
NDUFA6-AS1	-0.56092034	-0.38097628	-0.70455877
IVD	-0.56033217	-0.43510994	-0.89456359
SLC25A10	-0.55948616	-0.36553108	-0.816684
CBS	-0.55818014	-0.49263627	-0.8766665
FTCDNL1	-0.55759976	-0.42851501	-0.95304218
TMEM25	-0.53650468	-0.55661602	-1.08942415
POMT2	-0.55575725	-0.47829184	-0.82869173
SLC19A1	-0.55514766	-0.39980198	-0.80950827
AK4	-0.37776613	-0.55510821	-1.02536262
MOGAT1	-0.46931272	-0.55422142	-1.13492849
PCYT2	-0.55361709	-0.37385382	-0.70887121
RP4-758J18.2	-0.55342691	-0.33293506	-0.63949736
CCNL2	-0.5534269	-0.33293503	-0.63949793
GNAO1	-0.40709817	-0.55335288	-0.75878787
SAT2	-0.55328098	-0.32899268	-0.93540646
NUDT16	-0.49638324	-0.55146716	-0.78020807
SELO	-0.55049531	-0.42967262	-0.81287698
TMEM110	-0.4523131	-0.54941938	-0.79112255
AMBP	-0.5332563	-0.54935059	-1.14020971
PHGDH	-0.39295342	-0.54867972	-1.02306075
ALKBH2	-0.53423372	-0.54812573	-1.05512027
XYLB	-0.54782416	-0.46845163	-1.04680177
TTC31	-0.54772171	-0.40042391	-1.00386554
C1R	-0.36476152	-0.54761051	-0.46689801
STEAP3	-0.37738984	-0.54733639	-0.7956582
PMM1	-0.54627888	-0.28253201	-0.66711584
C16orf13	-0.54570672	-0.32688719	-0.59900216
ITIH1	-0.44793049	-0.54564737	-0.706061
SHMT2	-0.54552397	-0.52298954	-0.63145113
SH3PXD2A	-0.44187639	-0.54539559	-0.59425315
ASL	-0.54456235	-0.52231389	-0.88822704
NDUFS7	-0.54417121	-0.29338413	-0.57657413
TCEA3	-0.45619391	-0.54341951	-0.89797486
SUGP1	-0.54098686	-0.44638745	-0.86721951
VTN	-0.54075469	-0.443821	-0.95154547
ECHS1	-0.54056713	-0.41448155	-0.90503175
MRPL23	-0.53932617	-0.50045197	-0.79114635
AGXT2	-0.32841234	-0.53910873	-0.78881058
SLC25A42	-0.53807907	-0.36450899	-0.89628915
MARC1	-0.38312721	-0.53739454	-0.90228423
ELP3	-0.36883554	-0.53613072	-0.88042234

Table S5

TMEM37	-0.3196043	-0.53540935	-0.7913224
GULOP	-0.53516416	-0.40178378	-1.11734343
ASPSCR1	-0.53480527	-0.32653753	-0.72998491
GNE	-0.45806797	-0.53442947	-0.86996148
SLC25A18	-0.50350814	-0.53424868	-0.88496182
SLC46A1	-0.53407199	-0.42455711	-1.08035573
SFXN5	-0.496014	-0.53339116	-0.98794406
ICAM3	-0.5330691	-0.47745957	-0.51935567
TTPAL	-0.53285799	-0.4357361	-0.81143695
CTNS	-0.53240924	-0.37648291	-0.64363691
PRKAG2-AS1	-0.5310375	-0.31160358	-0.76549028
ABCG5	-0.5300833	-0.41424045	-1.2093052
PROZ	-0.52983523	-0.46086358	-1.03298731
SUOX	-0.47224945	-0.52936307	-0.91488826
SPTBN2	-0.41482506	-0.52846757	-0.96881172
CASC10	-0.46069097	-0.52801376	-1.1426007
LCN12	-0.52755957	-0.2416872	-0.54321365
C8G	-0.52755957	-0.2416872	-0.54321388
SIGMAR1	-0.52753124	-0.29635608	-0.60557434
MLYCD	-0.52746589	-0.40467836	-0.61196955
CPPED1	-0.45585123	-0.52692497	-0.9475356
ABCC2	-0.33069775	-0.526547	-0.85135036
HPN	-0.52571552	-0.45549562	-0.86362217
PKLR	-0.52544006	-0.47379075	-1.21718597
RAD54L2	-0.52459046	-0.48270611	-1.00880205
RP5-875H18.	-0.52423609	-0.39216451	-1.00091568
RP11-1151B1	-0.39617577	-0.51550649	-0.89295859
TMEM220	-0.44426325	-0.51422255	-0.93400535
TADA1	-0.51288083	-0.42028579	-1.04071106
ASGR1	-0.5127561	-0.48431379	-0.80798876
DOLPP1	-0.51267896	-0.41169338	-0.7954908
FXDY1	-0.51259674	-0.34985605	-0.76054743
PCK2	-0.51153711	-0.38174507	-0.70490079
DHRS4	-0.51151351	-0.35312145	-0.97458936
PGLYRP2	-0.51129907	-0.43756266	-1.05658469
LPAL2	-0.47613199	-0.51093138	-1.11224317
AC142528.1	-0.50993273	-0.47855001	-0.94550876
AGPAT2	-0.50987929	-0.50145303	-0.70351539
HIBADH	-0.40473344	-0.50932067	-0.82656481
RGS12	-0.41474877	-0.50878816	-0.7105457
TNFAIP8L1	-0.50681237	-0.31462028	-0.67833792
RP11-407B7.	-0.36462574	-0.50655877	-0.7214821
DCTD	-0.38206799	-0.5062648	-0.63171181
MRPS22	-0.42399493	-0.50613564	-0.85476713
PAOX	-0.50466519	-0.27578744	-0.48580766
PAIP2B	-0.50458813	-0.43717477	-0.60443857
NDRG2	-0.38817639	-0.5029702	-0.79425351
PEMT	-0.47849196	-0.50282158	-0.67136846
ALDH8A1	-0.30685945	-0.50167267	-0.85268204

Table S5

TSSC1	-0.41604199	-0.50166131	-0.49540256
AP001065.15	-0.50121439	-0.43630473	-0.76142614
FGFR4	-0.50079069	-0.40955859	-0.87405881
ZNF444	-0.49924193	-0.47143732	-0.97075247
LINC00094	-0.49907735	-0.34613862	-0.49621546
FAM73B	-0.49864561	-0.41579389	-0.78432955
CTD-2545H1.	-0.49794342	-0.4922324	-1.17932551
TFR2	-0.49737757	-0.40044049	-0.77485704
FLCN	-0.49727171	-0.39699181	-0.74957097
ACAA1	-0.49691562	-0.40187225	-0.91459311
FURIN	-0.38736648	-0.49665955	-0.39939185
ZNF696	-0.49657629	-0.3440484	-0.74943043
RNF126	-0.49601691	-0.33194009	-0.35968452
POLR3H	-0.49517761	-0.31785751	-0.59884772
GHR	-0.32229072	-0.49490278	-0.90289188
ACP2	-0.49474027	-0.46615352	-0.90064104
ZNF497	-0.49442209	-0.39183096	-0.75072184
ZBTB48	-0.49401346	-0.2997022	-0.5774085
FAM20C	-0.49390927	-0.46207081	-0.84181712
NAT8	-0.4935748	-0.42309711	-1.06265905
HPD	-0.49355526	-0.42777177	-0.80696298
ADI1	-0.49351634	-0.42814468	-0.86973939
SNHG8	-0.30963332	-0.49265941	-0.65512481
ZNF517	-0.4917722	-0.46460047	-0.68957468
EHHADH	-0.41997315	-0.49164704	-0.9694181
TBC1D2	-0.44369124	-0.49087881	-0.8841199
SFXN1	-0.45312962	-0.49081025	-0.89746839
FBXW11P1	-0.42475793	-0.49075521	-1.23583592
GALT	-0.48939574	-0.32661027	-0.73469772
MRPL20	-0.48889795	-0.29298016	-0.52441066
RP11-513G11	-0.32566644	-0.48866387	-0.80234035
ZBTB45	-0.48783977	-0.30485582	-0.6774168
EDC3	-0.44603223	-0.48753583	-0.69459683
AC009166.5	-0.32444132	-0.48751622	-0.78666214
PCBD1	-0.48719245	-0.39835197	-0.66753121
RP11-44M6.3	-0.48716407	-0.36623863	-0.90546724
LRRC37A5P	-0.4311686	-0.48715786	-0.98487631
OSGIN1	-0.48661609	-0.33313549	-1.01632723
TMEM82	-0.48639705	-0.40000723	-1.09018766
SLC26A1	-0.48606527	-0.39855654	-0.77787135
HSBP1L1	-0.35304183	-0.48601142	-0.2797335
ENTPD5	-0.35027874	-0.48523689	-0.87672378
BDH1	-0.48419263	-0.33955255	-0.88889941
SLC25A20	-0.48393904	-0.34051564	-0.81635543
MPLKIP	-0.48304731	-0.40127274	-0.84812195
SOWAHB	-0.46464072	-0.48157392	-0.8494645
CYP27A1	-0.41327242	-0.48118186	-0.88738579
IL11RA	-0.4798205	-0.3337762	-0.78763639
SLC27A2	-0.44706769	-0.47901059	-0.88428141

Table S5

ZNF385B	-0.33023531	-0.47848627	-1.1121292
DEAF1	-0.47796184	-0.36825415	-0.71320419
POLR2F	-0.47774132	-0.33296713	-0.91244513
MMACHC	-0.47712778	-0.41091257	-0.91635424
RP11-344P13	-0.39852927	-0.47679292	-1.09817688
HDHD3	-0.44181024	-0.47659129	-1.13296142
FABP1	-0.30753758	-0.47627108	-0.65808125
SCCPDH	-0.45745009	-0.47546018	-0.88128234
TTC38	-0.474034	-0.28784079	-0.61003563
CFB	-0.35693341	-0.47336005	-0.50191683
MTHFD1	-0.46427643	-0.47210587	-0.97478558
CYP8B1	-0.32041968	-0.47112259	-0.76499247
TRIM24	-0.40642724	-0.46963243	-0.71833726
PEX6	-0.46908041	-0.33063488	-0.40046953
BTD	-0.38310231	-0.46782556	-0.98352895
SLC6A1	-0.46749302	-0.33398139	-0.96537532
RANBP1	-0.46739615	-0.34553256	-0.56922529
RP11-38G5.4	-0.44114597	-0.4670968	-0.83228655
TOLLIP	-0.4670631	-0.37155505	-0.75223401
LGI4	-0.46690066	-0.30048316	-0.67703694
RP11-209K10	-0.35233705	-0.46683615	-1.01633402
OPLAH	-0.44651345	-0.46490928	-0.80120844
EI24	-0.46454905	-0.3812715	-0.69351012
CYP4F11	-0.4083028	-0.46418502	-0.89620285
WDR18	-0.40553702	-0.46347861	-0.5464171
TOLLIP-AS1	-0.463264	-0.37064645	-0.75023903
USP30	-0.45958095	-0.46283748	-0.87902466
ACACB	-0.35797062	-0.46176925	-0.83227568
AHCY	-0.4064863	-0.46103644	-0.67416827
ABCC6	-0.43846415	-0.45989323	-1.04522525
GLS2	-0.45963971	-0.27880136	-0.91114051
AC019181.2	-0.39783467	-0.45961561	-0.78812387
F10	-0.45882069	-0.36950754	-0.57993411
ZKSCAN1	-0.39867916	-0.45840621	-0.85685556
ADCY1	-0.45809579	-0.37976781	-0.92375978
CHMP6	-0.42696208	-0.4575594	-0.59055523
SEC14L2	-0.43225002	-0.45577579	-0.79066105
C7orf50	-0.45567089	-0.36783366	-0.6781544
FAH	-0.36603446	-0.45532692	-0.68099693
CLUH	-0.45525342	-0.26882068	-0.77884093
PPP6R2	-0.45511075	-0.25961048	-0.81276072
C1S	-0.27588469	-0.45447322	-0.48758785
FANCC	-0.28011776	-0.45402927	-0.59514464
SLC25A13	-0.45387704	-0.43150595	-1.05224
RNF215	-0.45336741	-0.45261625	-0.82976956
LHPP	-0.45207122	-0.33877499	-0.57478778
TFDP2	-0.45187246	-0.39525617	-0.72002289
KDM8	-0.39823294	-0.45164846	-0.75529104
ACSF2	-0.45161505	-0.28630564	-0.78922227

Table S5

RAB26	-0.45154017	-0.29370101	-0.65528094
AL161668.5	-0.4499014	-0.32396975	-0.6672811
TPPP2	-0.44990139	-0.3239697	-0.66728126
IPO5	-0.26741723	-0.44948608	-0.33905207
ZC3H7B	-0.44913537	-0.3385584	-0.74458735
RP4-584D14.	-0.3750442	-0.44912805	-0.52521848
RARRES2	-0.3750443	-0.44912805	-0.52521811
POLM	-0.44893481	-0.29853335	-0.54991727
GPR146	-0.44865796	-0.38895443	-0.82860245
MOCS1	-0.41773577	-0.44792101	-0.47232545
SERPIND1	-0.36698026	-0.44786657	-0.61587455
TACO1	-0.44688164	-0.37216997	-0.69124991
FAAH	-0.44572098	-0.40437451	-0.96122516
SLC22A1	-0.35592978	-0.44505431	-0.78689849
PUF60	-0.44404391	-0.29095008	-0.60675334
GLYCTK	-0.44377755	-0.35026885	-0.74176818
ARFGAP2	-0.44372545	-0.35288168	-0.5183326
PXMP2	-0.4433802	-0.24999398	-0.49449295
RAB40C	-0.44330146	-0.31355658	-0.61868624
PPL	-0.4315543	-0.44327275	-0.88450575
ESD	-0.39666646	-0.44284912	-0.94472626
DECR2	-0.3407892	-0.44198449	-0.43197355
ARMC6	-0.44171579	-0.38459195	-0.65195642
POLE2	-0.43139487	-0.44093522	-0.91510974
SP5	-0.43825549	-0.42995769	-0.95133296
AP1M1	-0.42285109	-0.43687256	-0.70823326
RP11-736K20	-0.35310608	-0.43597212	-0.73476085
PITPNM2	-0.43183173	-0.40867964	-0.69491797
SCLY	-0.40008884	-0.43091631	-0.67233199
OAF	-0.33562809	-0.43048654	-0.52222125
ALDH4A1	-0.28716605	-0.43042383	-0.57941302
ARRDC1	-0.43038866	-0.31724026	-0.48039866
KCTD21	-0.33341511	-0.43004666	-0.56652908
RP11-273B20	-0.42903237	-0.38342987	-0.59997147
RBP5	-0.42903235	-0.38342977	-0.59997146
AKT2	-0.42725154	-0.30639023	-0.61921373
DHRS1	-0.31698678	-0.42714246	-0.53697984
LDHD	-0.42515427	-0.42699012	-0.7034379
CNGA1	-0.4261871	-0.37338182	-0.77648303
GPD1	-0.42512576	-0.33581025	-0.76336898
EEF1D	-0.42455967	-0.27087658	-0.42517199
RNF43	-0.33079245	-0.42327577	-0.89362159
SND1	-0.41353442	-0.42320194	-0.77226424
STARD10	-0.42288169	-0.30011581	-0.74448099
UNC119B	-0.2635271	-0.42255029	-0.38503247
CYP4F2	-0.36909994	-0.42188912	-0.95761928
RAPGEFL1	-0.42174714	-0.38579213	-0.5904051
CCS	-0.42145656	-0.35268149	-0.66042388
RABEPK	-0.25830292	-0.42060896	-0.48140481

Table S5

SLC25A1	-0.42051755	-0.29538267	-0.65096155
XRCC5	-0.41252298	-0.42007243	-0.85869258
AC091729.9	-0.41998922	-0.30812968	-0.37373999
FAM50B	-0.24568531	-0.41974922	-0.42371236
KIAA1161	-0.41780651	-0.31125164	-0.891638
ORAI3	-0.41675126	-0.2260546	-0.58435632
RANBP10	-0.41582233	-0.35862083	-0.73566028
GGCX	-0.41520765	-0.4005541	-0.77519467
RAI14	-0.28978227	-0.41414754	-0.5539635
SEC24B	-0.41410303	-0.40612039	-0.67144048
DHRS4-AS1	-0.41357542	-0.28741066	-0.78660351
HGD	-0.41354462	-0.39801706	-1.18739372
AK2	-0.33886441	-0.41331637	-0.58780769
COMT	-0.41291208	-0.40673668	-0.49299638
IGSF8	-0.41194622	-0.35958714	-0.50922044
CNNM3	-0.40992921	-0.27139126	-0.70842299
CDA	-0.36907875	-0.40982203	-0.73029612
NIPSNAP1	-0.40921439	-0.27157182	-0.81872222
CDHR3	-0.31811406	-0.40828798	-0.61844292
CDKN2AIPNL	-0.35830649	-0.40812345	-0.89898706
PAQR9	-0.40581813	-0.34342162	-0.79228759
PGM1	-0.29171942	-0.40564516	-0.8076083
CLU	-0.33992741	-0.40451622	-0.75963304
METTL7B	-0.40440387	-0.36579102	-0.73229483
OGFR-AS1	-0.40303212	-0.28290761	-0.44519288
OGFR	-0.40303194	-0.28290762	-0.44519288
CNP	-0.40300593	-0.27696223	-0.36756841
SMARCD2	-0.40191315	-0.26016194	-0.59692606
SLC47A1	-0.38887493	-0.40078725	-0.71852437
MYH14	-0.39185752	-0.40078648	-0.69769087
ZNF3	-0.39956344	-0.29301597	-0.64767987
ACSL1	-0.38375538	-0.39712276	-0.74197923
CLDN15	-0.2855084	-0.39595715	-0.47311667
ZER1	-0.39454397	-0.33872364	-0.72088244
RP11-384L8.1	-0.39319765	-0.3070985	-0.70805451
CMTM8	-0.39319761	-0.30709859	-0.70805567
LRP1	-0.29833253	-0.39301776	-0.39321886
RNF220	-0.36030039	-0.39104117	-0.51895713
RP5-1033H22	-0.30503081	-0.39050236	-0.70986193
ECI2	-0.39036176	-0.30879026	-0.56948546
SIRT7	-0.38972422	-0.28326125	-0.45282197
FZD4	-0.34499709	-0.38933786	-0.7584114
SUV39H1	-0.36971855	-0.38888921	-0.3864843
CHST13	-0.38814415	-0.32402455	-0.94292085
NFIC	-0.38801358	-0.31715258	-0.48538705
SESN2	-0.3709953	-0.38782191	-0.76977309
AFMID	-0.38774641	-0.30584992	-0.73841801
NR0B2	-0.36539925	-0.38774243	-0.77096257
SLC12A7	-0.38663084	-0.27527243	-0.53529289

Table S5

CAPN5	-0.34570202	-0.38577686	-0.54390858
THRB-AS1	-0.34943077	-0.38575153	-0.5143923
ATXN7L1	-0.26845327	-0.38521028	-0.61673041
TALDO1	-0.38502538	-0.30703897	-0.46847866
DGCR8	-0.38471087	-0.3773287	-0.60355174
ATP5SL	-0.31559414	-0.38440531	-0.52457057
ZBTB42	-0.38427243	-0.2922977	-0.32281231
AKT1	-0.38427243	-0.29229771	-0.32281232
PANX2	-0.38404028	-0.36173835	-0.45008437
SHMT1	-0.38348468	-0.35373178	-0.71994683
F12	-0.38308371	-0.27951505	-0.55149116
NME4	-0.32377865	-0.38216429	-0.36021388
SLCO2B1	-0.38122455	-0.26391129	-0.90927741
RASSF7	-0.3811343	-0.293724	-0.48160157
RP11-655M14	-0.38109626	-0.26735602	-0.44800183
TBX10	-0.38109598	-0.26735594	-0.44800149
NUDT8	-0.38109581	-0.2673559	-0.44800168
PSMA7	-0.38098092	-0.29845841	-0.52323397
TRMT2A	-0.38057839	-0.22895339	-0.30002095
EEFSEC	-0.34037015	-0.38025914	-0.55114867
PEX16	-0.37993452	-0.33492077	-0.53062024
PARP10	-0.37981547	-0.21387565	-0.4415198
GRTP1	-0.37814196	-0.36530467	-0.57313097
HDLBP	-0.37797755	-0.3024235	-0.36468023
MAVS	-0.37731114	-0.36557947	-0.39103586
EPN1	-0.37682644	-0.27167571	-0.65296429
IRF2BP1	-0.37674375	-0.32099143	-0.55874281
TMEM80	-0.37570265	-0.24624656	-0.48887233
C16orf70	-0.37492915	-0.31083243	-0.7472723
SLC35D1	-0.37436408	-0.27595108	-0.51086931
SCAP	-0.37369073	-0.28496227	-0.71196538
ADCK3	-0.29812925	-0.37307645	-0.55028308
HSD11B2	-0.3726025	-0.31254558	-0.63032933
PHYH	-0.3720753	-0.33485628	-0.43956866
HOGA1	-0.31742346	-0.37107901	-0.74538627
RHCE	-0.37080779	-0.30171794	-0.30824765
AQP3	-0.32343107	-0.36985801	-0.47924905
LRR1	-0.3287904	-0.36848651	-0.63086192
SETD1A	-0.36744264	-0.23242592	-0.54818192
TMEM57	-0.3357718	-0.36739329	-0.53543977
EPS8L2	-0.36492322	-0.22369652	-0.46949034
AP000355.2	-0.36480429	-0.31196501	-0.77861157
GPAM	-0.36443184	-0.34811237	-0.73563915
FOXA3	-0.36375897	-0.29284569	-0.54493768
PIPOX	-0.36276665	-0.28074058	-0.62529362
EPHB4	-0.33746387	-0.36213718	-0.69733417
ANG	-0.25749011	-0.36109385	-0.57078707
NT5DC3	-0.26949837	-0.35751769	-0.62502549
WDR81	-0.35673733	-0.25774597	-0.37305684

Table S5

RP11-350G8.	-0.3543378	-0.35485534	-0.62108847
CERS2	-0.26745357	-0.35404273	-0.41326494
GTF2IRD1	-0.35349659	-0.33576831	-0.58765452
PEX19	-0.35337264	-0.34915125	-0.50655535
AKAP1	-0.35263918	-0.29265316	-0.54461459
SH2D4A	-0.25490705	-0.35212954	-0.59561929
NR1H3	-0.35210006	-0.27146195	-0.54058567
PDIK1L	-0.35204896	-0.2829924	-0.50072083
ANXA9	-0.26745198	-0.35124338	-0.40958112
KANK2	-0.35036754	-0.3319646	-0.38243988
SHH	-0.32551636	-0.35032606	-0.53739707
TMEM101	-0.33732052	-0.34983763	-0.61600529
RXRA	-0.34948675	-0.28767448	-0.48368668
C1RL-AS1	-0.34870299	-0.3393696	-0.43569585
KIF1C	-0.34811672	-0.23372311	-0.34784951
IDNK	-0.2652978	-0.34799289	-0.67952627
ELK1	-0.34650465	-0.30471213	-0.39580749
IL6R	-0.34129699	-0.3463338	-0.58491048
NEIL1	-0.34551526	-0.32270888	-0.64328877
SERPINF1	-0.34534084	-0.33522948	-0.64985492
FCGRT	-0.34444097	-0.27204935	-0.56575923
AGFG2	-0.34421296	-0.29824866	-0.70131317
MUM1	-0.34369254	-0.32853246	-0.3574704
ABHD14A	-0.34363545	-0.23778997	-0.39562106
MLX	-0.34239925	-0.32670861	-0.36319017
ACY1	-0.34232231	-0.247427	-0.39876477
STARD5	-0.3419298	-0.31524065	-0.33159342
FZD5	-0.25822211	-0.3409676	-0.47423842
DCAF8	-0.27681872	-0.339734	-0.54082338
ZNF408	-0.26236338	-0.33957453	-0.38782996
ALG3	-0.3389394	-0.32429392	-0.52733253
WIZ	-0.3386708	-0.23583346	-0.37982484
BAIAP2L1	-0.26230457	-0.33833424	-0.6019588
CTIF	-0.32081451	-0.33504599	-0.59247473
MACROD1	-0.33385226	-0.31944701	-0.57686503
COASY	-0.33200618	-0.31079482	-0.35159706
GLTPD2	-0.33175708	-0.27314765	-0.41857497
CES2	-0.32990787	-0.24570301	-0.51333198
FAM96B	-0.32990787	-0.24570233	-0.51333199
SDC1	-0.26936324	-0.32918957	-0.67380275
ZBTB39	-0.32865224	-0.32095137	-0.52880004
HDAC4	-0.32840301	-0.31694505	-0.35579226
SLC23A3	-0.32771937	-0.31415409	-0.54951
C1orf220	-0.32669137	-0.27036106	-0.40595386
AP000253.1	-0.32451248	-0.29401886	-0.38843167
PPP1R26	-0.3197786	-0.29937873	-0.54370224
PCTP	-0.28365657	-0.3197411	-0.5922709
RPS29	-0.27154984	-0.319368	-0.47937039
LTB4R2	-0.27227953	-0.31874686	-0.50537021

Table S5

LTB4R	-0.27227964	-0.31874682	-0.50537054
KIAA2013	-0.31837726	-0.27583915	-0.65165537
SOD1	-0.31814476	-0.30820525	-0.43495631
NFYC	-0.31229081	-0.31672619	-0.71642785
DDI2	-0.31641086	-0.26843984	-0.51322867
PLA2G12B	-0.31627894	-0.27972574	-0.76500964
GSDMD	-0.31549845	-0.28092864	-0.45407789
C2	-0.31260761	-0.31434771	-0.37725902
ENKD1	-0.31330502	-0.30424951	-0.32537375
NUDT7	-0.29642592	-0.31281805	-0.59155236
CDON	-0.31268371	-0.26055483	-0.4537799
PEX11G	-0.28673975	-0.31256604	-0.43191405
UPB1	-0.31139815	-0.27512159	-0.66114964
CTNNBIP1	-0.31070486	-0.26971012	-0.63266762
FAHD2A	-0.2759954	-0.31009587	-0.5911725
RAB40B	-0.27038904	-0.30958601	-0.50080643
NAPA	-0.30932566	-0.24080098	-0.39108463
ATP11C	-0.30919624	-0.29446512	-0.29433853
TPCN1	-0.2009117	-0.30642959	-0.49180961
KLHDC2	-0.25686425	-0.30247648	-0.56946719
MCEE	-0.30024145	-0.29215766	-0.4924433
SLC37A4	-0.27316758	-0.30000485	-0.39287485
VAMP8	-0.29952151	-0.27377672	-0.66261782
ERMARD	-0.29347634	-0.29781332	-0.36727197
FAM35A	-0.29523254	-0.26738233	-0.50841281
RPL41	-0.29310028	-0.23916321	-0.42498011
RP4-605O3.4	-0.2906624	-0.23350988	-0.38612762
COX14	-0.2906624	-0.2335097	-0.38612769
PMF1	-0.22145396	-0.28935479	-0.38422636
MTMR4	-0.28516127	-0.28642688	-0.43720715
MCCC2	-0.28210687	-0.26364444	-0.39030983
ZNF787	-0.27950087	-0.21988141	-0.38233136
NPRL3	-0.25928478	-0.27888637	-0.37029619
RAB11FIP3	-0.25547192	-0.27748997	-0.31537347
PLXNB2	-0.2757926	-0.20709931	-0.36280601
RP11-1055B8	-0.24897767	-0.27466938	-0.31095603
DBI	-0.23974492	-0.26067366	-0.41708917
SLC27A3	-0.22292407	-0.25561704	-0.51676853
RP11-1275H2	-0.22375083	-0.25122346	-0.56320321
RP11-1275H2	-0.22375074	-0.25122324	-0.56320293
ZNF689	-0.24985306	-0.24292946	-0.39225597
OGG1	-0.23787695	-0.24669267	-0.3942732
HIPK1	0.223081365	0.226794208	0.42875155
AFTPH	0.229032561	0.231996349	0.323559765
EZR	0.260488531	0.253964073	0.38550148
GAL3ST4	0.244427108	0.281077987	0.352040875
GGPS1	0.273509615	0.291437197	0.480016327
PPARD	0.294225848	0.262095152	0.446216662
PRPF38B	0.286121834	0.294350856	0.433861891

Table S5

HIVEP2	0.299790442	0.267480267	0.51770794
DENND3	0.261596651	0.300499743	0.445395014
RP11-356I2.4	0.275183333	0.304513623	0.405223713
CREB1	0.303374547	0.306719613	0.43707227
OSTM1	0.29658056	0.311399251	0.358633263
NABP1	0.310719368	0.312596991	0.403025616
GNA13	0.315310025	0.261456232	0.439649474
SPAG4	0.316600746	0.312743412	0.723950376
PARP8	0.284753406	0.317782005	0.375889268
SYT11	0.320922325	0.32197549	0.639831372
GON4L	0.320922596	0.321975568	0.639831596
RAB34	0.283690332	0.322605087	0.631162145
ARL4A	0.323018	0.312977801	0.361910759
LEPROTL1	0.325857506	0.279288314	0.467482332
HIVEP3	0.293661045	0.328636235	0.408247886
ANXA11	0.330605932	0.201074502	0.4482582
OGFRL1	0.334888571	0.30733855	0.447109696
KLHL5	0.335375097	0.285531484	0.434886497
IGF1R	0.340467509	0.328250579	0.631430121
COL4A2	0.342154233	0.259035993	0.500340147
PAK1	0.342711696	0.326455729	0.342389648
JUN	0.346821453	0.294065815	0.577942173
MTMR11	0.347161352	0.285825824	0.455952978
PDCD4	0.266200027	0.352438561	0.29721909
FHL3	0.343154803	0.355441214	0.615296883
F2R	0.356939871	0.352328927	0.375444003
MAP3K8	0.357692867	0.273579837	0.56758922
SERPINB9	0.319539442	0.359817902	0.623353362
PRDM2	0.280549516	0.359942734	0.519022522
IFFO2	0.361269267	0.345816233	0.456255939
ZNF160	0.359936416	0.36378827	0.586059349
TCP11L2	0.28389699	0.366840954	0.425968189
ACER2	0.367829349	0.305360022	0.728615919
RNF145	0.365827554	0.369032385	0.569779907
SH3RF3	0.287075499	0.369541857	0.63185531
SMURF2	0.309739652	0.372569024	0.545036894
CD47	0.373919004	0.363151165	0.492820842
MKL1	0.375310467	0.291027877	0.369775823
MAPRE1	0.350819218	0.375570159	0.588737072
BCL2	0.362056703	0.377629521	0.41328166
TSPYL1	0.37911655	0.275706593	0.595705473
RALGDS	0.315885323	0.380451608	0.687624369
USP37	0.381606158	0.340598244	0.61377526
RUNX2	0.292060239	0.384022378	0.379230373
IQGAP1	0.384183601	0.376788815	0.502844746
CDC42EP3	0.384923345	0.37741779	0.65951309
PAFAH1B2	0.385863482	0.355677091	0.583945924
DUSP5	0.37846408	0.386244743	0.669042634
RNF24	0.387484918	0.297827827	0.611629188

Table S5

SLC12A2	0.391208096	0.363408594	0.525635738
GYPC	0.305133073	0.391662919	0.467420726
IL2RA	0.395355832	0.328750423	0.392907034
ZNF304	0.32302879	0.396134187	0.60977122
FAM129B	0.365404021	0.397450652	0.637636248
AAGAB	0.394117875	0.402878196	0.569016988
KIAA1462	0.403469816	0.390227568	0.67699461
MDFIC	0.404998532	0.311795078	0.422101754
IGFBP7	0.378551077	0.405538443	0.799148068
STK17A	0.392601896	0.406428221	0.550560206
POU6F1	0.382764162	0.407952433	0.732505883
CEP135	0.408054151	0.341360251	0.488600789
ZNF568	0.33969794	0.408521724	0.375076773
IDS	0.375522944	0.409573421	0.673277179
ATP2B4	0.265743188	0.410072852	0.516609998
HELB	0.410351914	0.404359624	0.6121013
FAM49B	0.29091936	0.411063187	0.462608914
AGO2	0.283941632	0.411168589	0.672433353
CDC42SE2	0.412402579	0.379245204	0.612313082
SP110	0.351812513	0.412938598	0.437882922
REL	0.413520475	0.272690619	0.456416805
FAM228B	0.413555441	0.395111656	0.625609682
LUZP1	0.413661188	0.324162097	0.526863689
CD58	0.374650165	0.414597379	0.482002266
TULP3	0.415365485	0.391756036	0.612974034
JAG1	0.41536706	0.274330693	0.475637725
ZNF292	0.416049087	0.302302737	0.544846445
CTTNBP2NL	0.41729261	0.307937381	0.447608269
BBS7	0.381288072	0.420247506	0.699890733
HSPA12A	0.421194905	0.354604288	0.933883624
PRICKLE2	0.422388397	0.269549905	0.509798219
RAVER2	0.424645489	0.396429822	0.465886695
EGLN3	0.35420715	0.427324125	0.553939854
ZNF614	0.427340743	0.326688866	0.533644537
TIMP2	0.427906953	0.397655497	0.639617265
MXD1	0.429069833	0.330334463	0.718601334
PKDCC	0.361797758	0.429725187	0.837179519
SFMBT2	0.344571478	0.430611159	0.471917022
DYRK2	0.349399676	0.431402838	0.562562141
EVA1C	0.434009637	0.416985201	0.639826407
SYNJ2	0.434044595	0.377296784	0.600653487
KIRREL	0.435168201	0.41940162	0.825636265
RPS6KA3	0.435884155	0.292247852	0.745301502
ZNF347	0.436104478	0.433054579	0.840429453
HSPBAP1	0.440346368	0.264763076	0.517287908
ANKRD44	0.354216724	0.44114336	0.393004182
STK4	0.305577418	0.441628945	0.472876895
PHACTR2	0.441863107	0.30109068	0.399756804
RP1-111C20.	0.298700267	0.442328546	0.538737017

Table S5

ZNF548	0.292036365	0.443258443	0.595391167
ETS1	0.385071751	0.443436847	0.557858443
PDE7A	0.444196662	0.421571495	0.629287433
C1QTNF1	0.44015928	0.444534134	0.824921312
NF1	0.444607921	0.343258878	0.599683769
PMP22	0.445985181	0.402815098	0.823757235
ANTXR1	0.371010854	0.44800178	0.633096563
NXPE3	0.448138565	0.27467834	0.537424643
SLC41A1	0.449690934	0.420957543	0.900678454
TMEM217	0.449698291	0.314139174	0.368392256
PPP1R12B	0.451087346	0.260029154	0.458316998
PAG1	0.311640182	0.451441437	0.547226533
LINC00092	0.33776175	0.452488826	0.561303408
ANKRD36C	0.421146928	0.453125283	0.576882539
SLC6A9	0.388165111	0.453161691	0.574088004
QSOX1	0.429716669	0.454438777	0.608031492
PAPOLG	0.454943589	0.427355618	0.696985246
MPP3	0.455015369	0.427755128	0.702005006
AMIGO2	0.375510933	0.455745048	0.637848731
PDE4B	0.456352712	0.335356282	0.396748258
TMEM185B	0.400942851	0.456635366	0.741478261
ALOX5	0.314869941	0.456796535	0.525875361
DDHD1	0.457947775	0.378342924	0.722001022
PAM	0.458964423	0.412575192	0.7266303
ARMC2	0.459694287	0.255232991	0.337034311
EMP3	0.30966654	0.46017564	0.621051109
PRTFDC1	0.430369821	0.460880726	0.6309021
WIPF1	0.34676681	0.463047473	0.495000465
UBE2Q2	0.463428871	0.440399557	0.644102319
DNM3	0.467082408	0.422656904	0.532075148
PACS1	0.374660341	0.467571481	0.750372174
MAFK	0.471025329	0.401034756	0.841548636
HECA	0.329154364	0.477860286	0.733628582
FHOD1	0.409563151	0.478254394	0.70168082
ZNF611	0.394147266	0.479161963	0.527688616
FKBP10	0.458698707	0.479916874	0.616501775
CEP85L	0.48009881	0.3076561	0.580334507
PRDM1	0.46971767	0.48160546	0.477783114
TMEM184B	0.481630466	0.478697692	0.768904805
IER5	0.373800487	0.482383647	0.761903655
GPRASP1	0.388498378	0.482426021	1.160182126
PIP4K2A	0.40369193	0.484900626	0.495228797
FAM57A	0.42520587	0.484943301	0.793808568
STXBP1	0.487709912	0.460779663	0.980004461
SYTL3	0.239362443	0.488129786	0.493239551
SCLT1	0.489331285	0.426597413	0.824877495
TPM2	0.490370619	0.488065297	0.793161909
ARRDC4	0.349732724	0.490549623	0.347647808
RUNX1	0.491034796	0.396241437	0.353831264

Table S5

SEL1L3	0.413177057	0.491640707	0.518772018
ZC3HAV1L	0.386688012	0.492259925	0.728158869
DACT1	0.493396734	0.452295073	1.038261475
ANK3	0.378458505	0.495036288	0.485385694
BIRC3	0.483974999	0.495183938	0.646148009
APH1B	0.49565719	0.467480552	0.682015478
CMTM7	0.338289337	0.496557216	0.4804797
GLIPR2	0.303163715	0.497178503	0.511068333
ABCC4	0.500754987	0.374485403	0.40235697
PPP1R2	0.30381138	0.501012439	0.61673513
PHLDB1	0.397872735	0.501248605	0.91412194
MEF2C	0.502942455	0.358971574	0.571762933
CEP97	0.503328626	0.4070238	0.7141843
ITPKB	0.333122048	0.504518486	0.520764515
METRNL	0.321827262	0.506598937	0.803407154
COL4A1	0.506930346	0.452896292	0.955112343
DBN1	0.463452059	0.50779986	0.81525489
TNFAIP8	0.416893454	0.509512265	0.620493824
CHST15	0.509877616	0.433531977	0.516321256
FBLIM1	0.510973153	0.448519174	0.53024578
PCSK5	0.512893662	0.401550072	0.378796981
ARRDC2	0.438137992	0.514273212	0.623576633
MMP14	0.514579971	0.357666286	0.642425098
BARD1	0.515778395	0.49116312	0.737108257
GATA2	0.407348652	0.516425777	0.832191932
FAM102B	0.510185364	0.51646631	0.614132616
PHF20	0.359671859	0.517148783	0.715179235
FOS	0.517234824	0.498433236	0.946633041
PLAGL1	0.36332848	0.51831473	0.677888337
ADAMTS10	0.518913035	0.459491976	0.457195409
VCL	0.519639895	0.309331897	0.699337003
NFKB2	0.376319496	0.520614223	0.908502759
ZNF267	0.522100613	0.403892853	0.774606055
GEM	0.493699669	0.522751691	1.172023856
SH3YL1	0.524620877	0.396174751	0.504277401
TP53BP1	0.417989943	0.525821354	0.691957957
CHST3	0.525971357	0.398703752	0.616554266
MEF2C-AS1	0.52831047	0.435842477	0.636296372
GALNT7	0.479120496	0.529427407	0.751715971
PPP1R15A	0.514389737	0.529603346	0.986872636
FAM131A	0.530523529	0.470298667	1.018516806
CHST11	0.350138133	0.531216338	0.504331794
NEURL3	0.532005762	0.405252886	0.337177055
SPINT2	0.408651085	0.532163047	0.699850131
RIN1	0.501040364	0.532660833	0.782224013
CDKN1A	0.535850244	0.370355654	0.697261125
RASGRP3	0.53609675	0.426859625	0.396080844
PDE3A	0.53625641	0.412633357	0.955539934
PDE5A	0.537329583	0.459864608	0.665333288

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DNAJB6	0.431645686	0.537396201	0.976173903
GIPR	0.535012512	0.539011536	0.659671634
NKRF	0.539077522	0.488154126	1.054627643
TNFRSF12A	0.540172975	0.475554852	0.93214963
B3GNT7	0.404921375	0.543105597	0.616382278
SLC1A5	0.417498642	0.543489452	0.816040235
NOTCH3	0.543693344	0.387966504	0.784943273
HCG11	0.357110286	0.545716937	0.601438376
HDAC7	0.464499603	0.546081129	0.722697103
ARL4C	0.385958776	0.547515878	0.67877737
SLC26A2	0.477197812	0.547998395	0.857326247
E2F3	0.549127291	0.409319498	0.659670909
NFKBID	0.35908523	0.552198181	0.760798409
ENDOD1	0.552480245	0.552217026	0.71269388
PEA15	0.555507539	0.546543456	1.03931698
FLVCR1	0.5560836	0.337673047	0.836742252
TUBB6	0.556252434	0.491547156	1.100981946
CHORDC1	0.556449598	0.541511635	1.02694634
CAV1	0.557498756	0.30249684	0.500792194
SLC35F2	0.558606474	0.51792416	0.683458454
PDP1	0.392131742	0.559931073	0.821012257
NRSN2	0.560690894	0.560408616	0.947109278
FAM167A	0.456280796	0.562433878	0.490249392
AP3M2	0.312142642	0.562985459	0.751841339
MTHFD1L	0.563113995	0.388935503	0.676478865
ITPR3	0.347230059	0.563192021	0.546994507
ISG20	0.450280119	0.566118365	0.696019577
RARG	0.381317291	0.56736657	0.628509881
TMEM51	0.567479855	0.423530116	0.922976481
RP11-712B9.	0.512347276	0.567727404	0.683375688
PCBP3	0.458314433	0.568121124	1.253028059
ARHGAP31	0.562569988	0.568878284	0.733082547
INPP4B	0.501956565	0.569897846	0.789517103
PRICKLE1	0.570264607	0.568914698	0.89873799
SWAP70	0.571210056	0.547021419	0.734928003
TMEM173	0.313752238	0.571944503	0.699594715
WNT4	0.446798283	0.57537098	0.857393868
MARCH3	0.576055231	0.450017656	0.76152768
PTPRH	0.576704696	0.532198117	0.556602024
TMEM51-AS1	0.576892658	0.421529415	0.967370605
ADAM9	0.580951303	0.276442036	0.715379109
AP1S3	0.581252425	0.489957904	0.776054731
GSTM5	0.535085686	0.58281795	0.61725555
GSN	0.583038296	0.349205276	0.531799513
PLAU	0.369327975	0.584164174	0.666492951
RAB8B	0.584385099	0.435094975	0.61975685
ZNF486	0.513653742	0.584671173	1.066425204
RP11-848P1.	0.579554881	0.585260645	0.876293593
ZNF853	0.407358804	0.586522537	0.907036426

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DLG3	0.528967315	0.586854813	0.820866921
FGFR1	0.587809055	0.510332868	1.094461747
STX11	0.589569559	0.557751235	0.727483359
ZSWIM4	0.589734431	0.562869664	0.970940457
CD83	0.434278257	0.59034087	0.76950853
P2RX1	0.39595553	0.592074792	0.806698716
SYCP2	0.507744487	0.593534714	0.921371064
SLC25A24	0.595278352	0.450309161	0.689776722
FAR1	0.379336753	0.595745636	0.828215269
ITGA3	0.596532834	0.575199784	0.88123093
IL34	0.526819781	0.596731065	0.85169493
COL16A1	0.539115511	0.598463585	0.934729851
FUT4	0.525829321	0.598517053	0.686539662
TPM4	0.420217884	0.599852113	0.76783008
MCAM	0.600988239	0.507317604	0.734896967
STAT4	0.601068057	0.568990497	0.881825694
LOXL1	0.392251889	0.60176019	1.05835009
ENAH	0.602824516	0.370603715	0.795983765
KIF3C	0.544753065	0.604347027	0.677303717
EIF5A2	0.583215851	0.604884516	0.970919778
F3	0.6056885	0.491853766	1.087764645
ITM2C	0.474441429	0.608117542	0.62955545
CLSTN1	0.526125776	0.609830867	0.950303805
MTHFD2	0.491592573	0.610179805	1.10181115
LINC00271	0.611760602	0.365382416	0.757981791
AHI1	0.61176064	0.365382539	0.75798221
PTGER4	0.378194404	0.612572855	0.69796355
SRGN	0.612651009	0.565882212	0.857164284
PARP6	0.409681335	0.612664171	0.772020189
C1orf116	0.612768101	0.482580222	0.500828914
CYS1	0.614048741	0.587103886	0.772618875
ATP9A	0.615486653	0.311866672	0.621591589
CYTIP	0.530097039	0.615903841	0.71314352
C1orf145	0.425811014	0.616010027	0.947567772
COL12A1	0.617872719	0.554285849	1.363484275
SESN3	0.411890139	0.619608405	0.725186499
ALDH1A3	0.620365164	0.548935512	0.897281609
PDLIM4	0.620418181	0.520717767	1.316114933
ABCC1	0.602252697	0.621409834	0.98393832
ARSJ	0.621802897	0.38518403	0.558392857
RELB	0.401047262	0.62198863	0.920851678
MYOF	0.62355697	0.479672522	0.715551801
GSTP1	0.565258276	0.624030881	0.88237969
RHOQ	0.62453525	0.506191347	1.043641376
LTBP4	0.355422168	0.624952145	0.845579797
BATF3	0.625352233	0.609677722	1.206122759
TEAD4	0.62582399	0.435645967	1.069355119
COL1A2	0.478290766	0.626283835	1.107571775
RIMKLB	0.627178251	0.459354882	1.071884245

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PYGO1	0.452025227	0.628402572	1.03335707
ROBO1	0.628490964	0.55898068	0.988995948
ZNF529	0.557124579	0.628588981	0.628995561
RAB11FIP5	0.629195582	0.366165132	0.775278583
RECK	0.629476899	0.43788935	0.864847551
BEX4	0.591085104	0.630052112	0.925028193
SFXN3	0.587975754	0.630408542	1.022436964
PIWIL4	0.631344199	0.538626102	0.655619141
SPECC1	0.479480724	0.634446756	0.770884397
PAQR5	0.634673137	0.531130076	0.658700773
ISYNA1	0.439517876	0.6369664	0.868617214
VIM-AS1	0.511396095	0.637303626	0.826360371
ZNF667-AS1	0.528779455	0.638381935	0.970760707
ZNF667	0.528779164	0.638382088	0.970761003
RAB11FIP1	0.385998578	0.638469335	0.647451819
ODF2L	0.638581945	0.608583863	0.899801544
NCK2	0.518033314	0.638670339	0.756055898
DZIP1L	0.639337214	0.600650837	0.884641504
SLC38A1	0.588848903	0.63944904	0.747693422
SCRN1	0.641715083	0.569662547	0.943347181
HENMT1	0.413490647	0.642825889	0.709796509
SLC45A4	0.48788347	0.64300174	0.772410458
VIM	0.505487077	0.644339332	0.833819994
ZNF506	0.644617345	0.610131543	0.990952769
MLLT3	0.599369123	0.645692864	0.772027852
PLD4	0.502701344	0.649919532	0.825313474
SLC7A6	0.415123721	0.651101267	0.822257322
FRAS1	0.651770989	0.538172221	0.518146397
XYLT1	0.427888943	0.651792969	0.58332928
DNAJC6	0.653386652	0.566178783	0.783161672
BICD1	0.653645784	0.566036138	0.883501062
CYR61	0.65428371	0.475106685	0.823760926
ZNF426	0.654417115	0.436738757	0.775752243
OBSCN	0.403118771	0.655132817	0.80214218
CLCF1	0.655495699	0.62940671	0.871357132
C7orf31	0.406849569	0.660036834	0.667563336
LCA5	0.660079501	0.43118261	0.791924815
ZFP82	0.625990458	0.660677336	1.032572749
LXN	0.661118683	0.483500037	0.626197715
KIAA0226L	0.508741315	0.661907654	0.741685485
LBH	0.344988323	0.661916514	0.706489011
RP11-44N21.	0.503208663	0.663164549	0.677958082
BCL11A	0.569817577	0.663195155	0.655630669
SOD3	0.584113812	0.663305316	1.106175413
VANGL2	0.664977753	0.631817024	1.021377972
MAP2	0.665740249	0.441906702	0.775220046
TUBA1A	0.537600306	0.666033171	0.818008175
FLRT2	0.666327567	0.550876944	0.695048083
IFT57	0.666688379	0.535326684	0.947516169

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RP11-1149O2	0.53127556	0.669059338	0.783240061
NFATC4	0.563652334	0.669185203	1.038567124
ADRA2A	0.668960964	0.670133927	0.853816691
HLA-L	0.532802191	0.676069925	0.818613336
CD44	0.414713869	0.677186835	0.649040149
STK39	0.555015527	0.679326707	0.797824225
PTP4A3	0.336537952	0.679821803	0.798439769
RASSF3	0.674825272	0.681187081	0.675761777
IGF2BP2	0.615170482	0.685164517	0.856115682
ARMCX1	0.67367224	0.692607097	0.859588727
PDGFA	0.692748857	0.64020435	0.852544453
MAML2	0.692868133	0.614441612	0.820421152
HOMER1	0.645885319	0.694713666	1.07495359
SLC25A36	0.618226778	0.695150081	1.056583337
MEX3B	0.488256445	0.695256891	1.093299601
ZNF14	0.509113578	0.697003092	1.1886554
CSGALNACT	0.697211201	0.53962567	0.54981778
ZNF43	0.697660428	0.660418506	1.039602559
FAM60A	0.69798662	0.576873459	0.866129435
ZDHHC13	0.592845673	0.701343126	0.878320105
ROR2	0.479533781	0.701468525	1.334462634
LRRC8B	0.702189748	0.435268295	0.787451084
SNPH	0.658618236	0.703076302	0.743536074
SIK1	0.575175777	0.704032935	0.857330428
PDE4A	0.502387205	0.707425463	0.848590406
SLC6A8	0.492512832	0.709858623	1.037486517
LETM2	0.70993884	0.518588338	1.06272038
NLRP1	0.33686951	0.712029867	0.644611348
SLFN11	0.571798012	0.71204882	1.16316364
CDC7	0.713855959	0.465142137	1.163339351
AFAP1	0.636247917	0.71489051	0.998032109
ZC2HC1A	0.629179178	0.716519229	0.787930296
FMNL1	0.324273897	0.717821922	0.736343112
NFE2L3	0.574755836	0.719681886	0.852479407
TNFRSF21	0.719694702	0.546953084	0.975354691
CHST10	0.719728816	0.612378244	0.689641456
SELM	0.56812723	0.719758395	1.13945753
RP11-325F22	0.504605968	0.720904511	0.879016287
MST1R	0.471818744	0.720963103	0.732662873
STX3	0.721029849	0.48367941	0.735726677
MFSD6	0.522895394	0.72111097	0.86857323
MIR24-2	0.539064298	0.721400786	0.947081072
TNFRSF10A	0.504172594	0.721506148	0.703351839
GABBR1	0.650014502	0.721575598	1.057885613
S100A4	0.368205207	0.72160432	0.528870877
CNN2	0.352231279	0.724444832	0.884437516
NFATC1	0.530487375	0.724553046	1.069256941
SGCA	0.72589799	0.719817199	0.923686675
HTR7	0.475920305	0.727896868	0.945541087

Table S5

ZNF462	0.730060555	0.448876496	0.767522714
EPB41L4A	0.730407794	0.578174473	0.537996968
TC2N	0.566990497	0.730476923	0.68615594
STK17B	0.457297522	0.731689385	0.708575115
FAM43A	0.38031763	0.7321046	0.640350792
ZNF682	0.732581884	0.552419208	0.861595742
CDR2L	0.732599979	0.521053825	1.047390046
ANXA1	0.732640229	0.578697593	0.766981146
DBNDD2	0.733101326	0.733446323	1.134643553
MCTP2	0.734541442	0.717216957	1.096167097
TRPC1	0.741884183	0.596541628	1.43374006
NCR3LG1	0.742760607	0.604957529	0.982401369
GDPD1	0.746106966	0.520454335	0.705913897
ZNF551	0.551751402	0.747659986	0.89612945
EFEMP1	0.683044106	0.748331595	1.216295935
BTG2	0.6140358	0.748932299	1.023087277
GPR160	0.699344485	0.755159106	0.598891627
ENO2	0.560165372	0.757274638	1.12421352
PTPN13	0.731357558	0.757326872	1.056037368
MAPK10	0.73135737	0.757328391	1.056046667
SRGAP1	0.758608897	0.604731801	0.534220668
METTL24	0.760346167	0.717229338	0.717289428
LOXL1-AS1	0.47086974	0.76116581	1.128844822
ZNF135	0.612341726	0.76129642	1.013671626
AC006273.5	0.761592411	0.735830544	0.619868963
SLC7A1	0.763431281	0.686349262	1.187463138
KCNN4	0.395429344	0.763767929	0.783537488
NRARP	0.614133349	0.764442552	1.065866784
LRRC7	0.764575923	0.654624368	0.90021873
S100A6	0.714107626	0.765573208	1.099875192
DUSP4	0.767199069	0.565289109	0.851010563
TES	0.646417788	0.76721734	0.798211491
RASSF2	0.425200189	0.767442211	0.68538345
PFKP	0.768633429	0.394878914	0.65091497
C11orf63	0.766416415	0.770703934	0.960167525
SERTAD4	0.613864741	0.77235122	1.044123754
SPHK1	0.773529454	0.596747352	1.101294036
ZNF93	0.741363503	0.77732631	1.058602194
DOCK8	0.71316828	0.779981583	0.589496134
DNAJA4	0.416739648	0.78066734	1.072918205
GUCY1A3	0.781015227	0.439094629	0.507237064
SEZ6L2	0.783008462	0.520468142	0.822784534
ZNF430	0.62275886	0.786366379	1.084634388
KIF5C	0.569014994	0.786950832	0.867254288
PMAIP1	0.788059081	0.769719603	1.096750623
MIR155HG	0.638337376	0.789006148	0.865719507
OSM	0.457170621	0.790183323	0.956708172
GLIS2	0.585536632	0.790811995	0.832789531
HS3ST1	0.791348044	0.56934978	0.801182106

Table S5

MB21D2	0.791620807	0.612794891	1.138657505
PAPLN	0.609780895	0.791866577	0.961639525
ZNF83	0.749871293	0.795918019	1.030880274
ZNF525	0.650878704	0.797975343	1.057567096
CD24P4	0.799895556	0.793790186	0.933194004
GLS	0.768838958	0.801281969	1.144375514
CDS1	0.804153551	0.63792143	0.952696997
PDZK1IP1	0.804195646	0.590929172	0.709574289
SGPP2	0.806420656	0.748435724	1.097760621
EMILIN2	0.565521219	0.809275777	0.902193776
ZNF738	0.714205807	0.810129303	1.13657667
ZNF827	0.61687125	0.81182985	0.781513896
KIAA1324L	0.640722181	0.81313444	1.235642529
CRIM1	0.813517637	0.572747295	0.921695286
LGALS3	0.815548829	0.804608385	0.994787527
AC009495.4	0.820258391	0.627158372	0.808078825
GALNT3	0.820258899	0.627159731	0.808078871
LAYN	0.825700128	0.56557893	1.052452064
CDH11	0.789476967	0.827060526	1.477055491
NBEA	0.828162605	0.557642957	1.036087312
IFI16	0.829001214	0.570937517	1.011060941
PRDM8	0.414706901	0.833179856	0.845111207
EPHA4	0.840700397	0.515347282	0.86838433
IL20RA	0.84074687	0.630800091	0.612826406
MOXD1	0.618190369	0.855717574	1.150140855
ZNF610	0.855800767	0.76624814	0.97641434
C2CD4A	0.858076993	0.613315645	0.882540785
PTPN14	0.85928039	0.542402552	0.945858694
CLDN4	0.863854077	0.707327231	0.922554256
ZNF320	0.699400505	0.864345226	0.931547715
SULT1C4	0.866619701	0.558533594	0.718927912
C1orf198	0.86838867	0.757718806	1.094919659
RP11-255H23	0.783483461	0.871348213	1.010906656
RP11-54O7.1	0.660607031	0.874922543	1.064258834
ZNF439	0.775400301	0.877639273	1.262197178
OXCT1	0.690523756	0.880938235	1.069254155
HLA-V	0.659680379	0.881358994	1.16073184
NACAD	0.885404059	0.789489556	1.300015991
GRAMD1B	0.88789388	0.878245233	0.794624725
BHLHE41	0.893801594	0.820460439	1.286457039
CXCL1	0.893977743	0.496767088	0.526186881
LOXL4	0.83770117	0.896403241	0.851418503
SPINT1	0.901905301	0.813207289	0.975823759
TUBB3	0.779011781	0.90258575	1.290658193
SLFN13	0.716471682	0.904740565	0.861014631
TESC	0.911545657	0.715589596	0.830911428
GPRC5B	0.915824356	0.719255441	0.942102134
B3GALT5	0.822985522	0.922413417	0.861044024
LEF1	0.645811568	0.927960289	0.915762323

Table S5

CCND2	0.51570471	0.932971738	0.957815292
BACE2	0.938732448	0.934214528	1.180580729
LAMA2	0.945124921	0.704265369	1.094934766
ZNF781	0.895821399	0.947398013	1.099287602
WFDC2	0.951171421	0.842557026	1.125820442
ITGA2	0.954180973	0.728965144	1.165242523
COL4A4	0.716633371	0.960954747	1.437879299
COL4A3	0.716633311	0.960955383	1.437879067
TAF4B	0.601467961	0.961993568	1.110135237
ASNS	0.808192233	0.9686812	1.422460607
SOX4	0.970143129	0.643366548	0.997579409
ZNF607	0.968012074	0.971053252	0.990687874
HSPA4L	0.97111408	0.703913228	1.071549775
PRSS22	0.973147344	0.785889909	1.159589884
KRT80	0.975656829	0.776899478	1.004802706
ANXA3	0.982886526	0.654180672	0.842732126
ZNF665	0.988269337	0.988497735	1.152050673
C1orf106	0.989172252	0.922847025	0.839850624
BDKRB2	1.002198914	0.754592751	1.011583899
ZNF66	0.786372916	1.006124139	0.961626107
AC098614.2	0.73989189	1.0094951	0.940652641
ANKRD18A	1.010704235	0.791441548	0.785329371
FAM201A	1.010704236	0.791441029	0.785329714
KLF5	1.019392782	0.618661708	1.193974217
ITGB8	1.020499958	0.950670586	1.015575709
ST8SIA1	0.528063147	1.022562452	0.916305816
ADAMTS9-AS1	1.038019788	0.676904114	1.166966461
ADAMTS9	1.038019805	0.676904237	1.166966454
ZNF793	1.036346123	1.04053639	1.202138037
C3orf52	1.056461919	0.74854065	1.488276515
CXCR4	0.69277409	1.056946558	1.224860879
TGFB2	1.072455418	0.668162167	0.890278958
YBX3	1.07488767	0.602134294	1.352336379
CXCL6	1.076024925	0.821228508	0.696870378
F2RL1	1.078222981	0.628091109	0.895125608
GULP1	1.083348983	0.871062949	0.968807187
ZNF382	0.915147688	1.089436784	1.21068632
EVC	0.70441736	1.090294651	0.516823058
TNFRSF11B	1.092919974	0.804327087	1.100557147
PDX1	1.038066861	1.102100707	0.7862919
PMEPA1	1.118648747	0.985973345	1.414838351
FAM150B	1.129388839	0.933550042	0.922089091
WNT10A	0.540257361	1.132005477	1.224269891
TTC9	0.913266615	1.132654105	1.120454084
TMEM55A	1.137570012	1.020245422	0.965784753
EVC2	0.799160515	1.139165169	0.869281574
HSPB8	1.025749728	1.15133921	1.120026788
ZNF431	1.052420036	1.161452699	1.458450424
B3GNT3	1.165471157	1.134595624	0.964679707

Table S5

GABRE	1.165947655	0.831243871	0.892047323
CTD-2008P7.	1.167133326	0.994370144	1.052259786
TBC1D30	1.188216141	0.751231151	1.215612395
VCAN	1.229051871	0.768855041	0.927123212
LRRC1	1.161178434	1.239454453	1.277581722
KRT7	1.292728533	1.012872642	1.075317798
CLIC6	1.327757594	1.073494196	1.204502905
DUSP8	1.116378379	1.335635054	1.357248224
CDH6	1.381288476	1.127881105	1.173659605
EPCAM	1.393948787	1.362415936	1.443182647
SNAP25	1.47530976	1.063873301	1.253565778
SOX9	1.556321384	1.610091505	1.278104335
DTNA	1.746428474	1.814806457	1.61084037