

Figure S1. Expression of three genes in different TNM stages. (A-C) Box-plots demonstrate the expression of (A) C8orf76, (B) KIF21A and (C) RAD54B in TNM stages I/II or III/IV in the GSE20711 dataset. *** $P < 0.001$. RAD54B, RAD54 homolog B; KIF21A, kinesin family member 21A; C8orf76, chromosome 8 open reading frame 76; TNM, Tumor-Node-Metastasis.

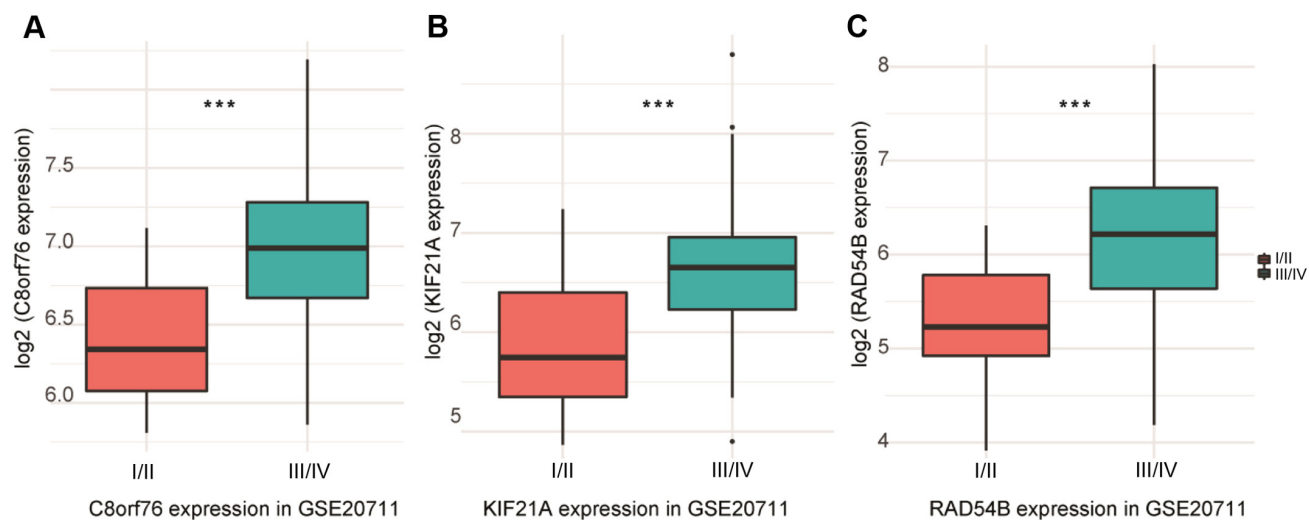


Figure S2. (A) Constructed signature nomogram to preoperatively predict overall survival of breast cancer patients, with the age, sex and the risk score based on RAD54B and TNM stage. (B) Decision curve analysis of the signature model in all TCGA patients. The y-axis displays the net benefit, which was calculated by subtracting the proportion of false-positive patients from the proportion of true-positive patients, weighting by the relative harm of giving up treatment compared to the negative effects of unnecessary treatment. The solid black line represents the net benefit when all breast cancer patients are considered as not having the event; the solid gray line represents the net benefit when all breast cancer patients are considered as having the event.

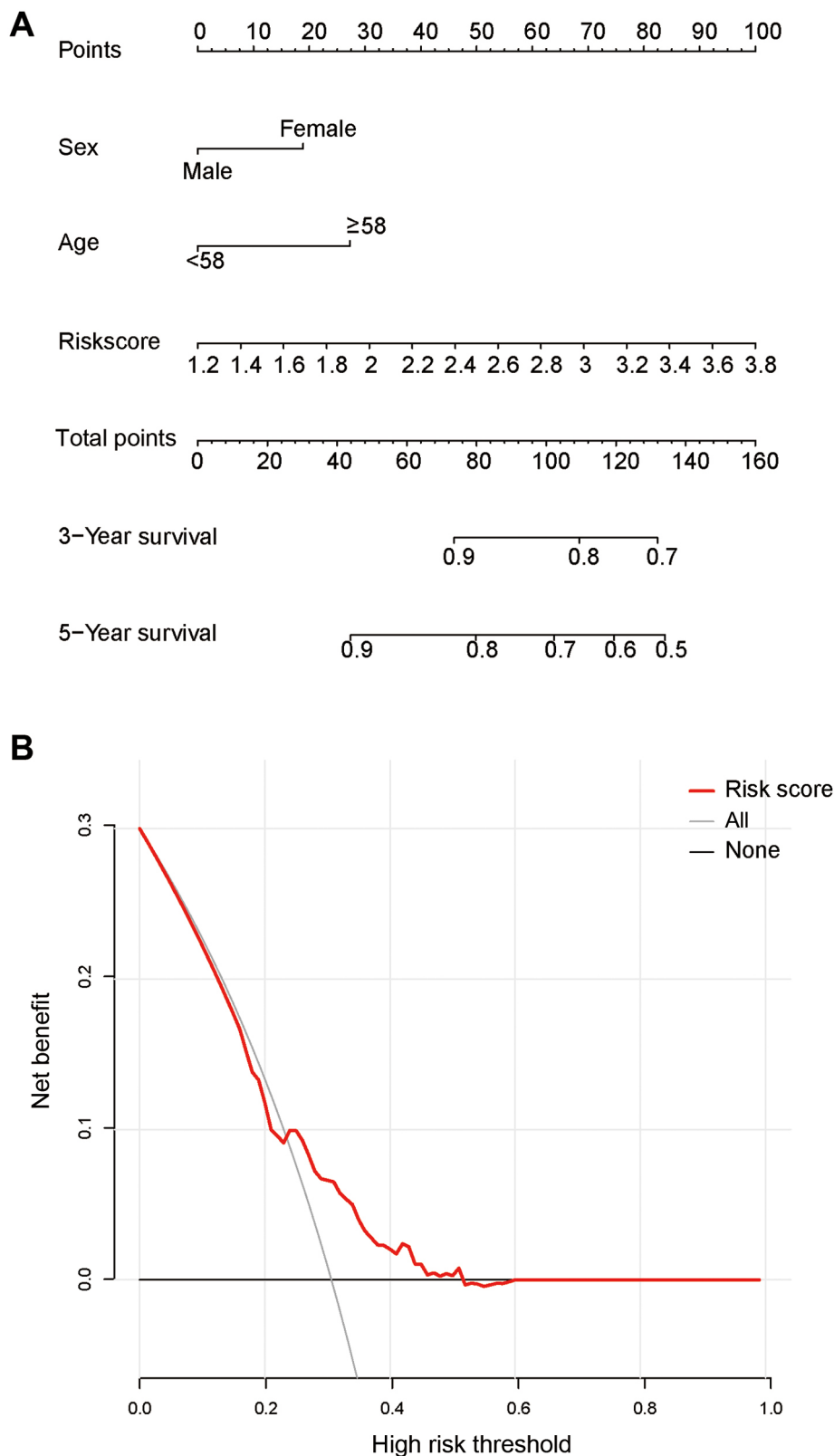


Table SI. Differentially expressed genes in the GSE20711 dataset.

Gene	logFC	P-value	Adjusted P-value
AK055458	1.066031979	6.59E-16	1.51E-11
MMRN1	2.383047144	1.22E-14	1.40E-10
FXYP1	1.862378348	4.39E-14	2.81E-10
SDPR	2.866996337	4.91E-14	2.81E-10
SLC7A3	1.712526782	9.42E-14	3.59E-10
SVEP1	1.072782028	9.43E-14	3.59E-10
RNF186	1.409862353	2.89E-13	8.92E-10
PAK7	1.126291231	3.12E-13	8.92E-10
CLCA4	1.814951001	5.13E-13	1.30E-09
ADAMTS9-AS2	1.661030326	3.84E-12	8.78E-09
LOC100507311	2.565397821	1.46E-11	3.04E-08
MUC7	1.177095875	7.56E-11	1.37E-07
RP11-489E7.4	1.439081189	7.79E-11	1.37E-07
SCN3A	2.167809913	1.06E-10	1.74E-07
IGSF10	3.305971369	1.20E-10	1.83E-07
BC043400	1.117320617	1.42E-10	2.03E-07
NRIP2	1.354483836	2.05E-10	2.76E-07
TNXA	2.147885942	2.38E-10	3.03E-07
TAC1	3.588833071	6.63E-10	7.98E-07
LRFN5	2.162958981	8.43E-10	9.64E-07
LOC100505851	1.325781232	1.96E-09	2.04E-06
SCARA5	2.504049279	3.07E-09	3.05E-06
RHOJ	1.60867166	3.41E-09	3.25E-06
ABCA9	1.851814055	3.73E-09	3.41E-06
ROBO3	1.916956531	5.39E-09	4.74E-06
SAMD5	2.224923704	8.40E-09	7.11E-06
BCHE	2.20956596	1.39E-08	1.13E-05
MAB21L1	3.266502201	1.74E-08	1.37E-05
C1QTNF4	1.363971995	2.34E-08	1.78E-05
TSLP	1.566889544	2.45E-08	1.81E-05
CXCL2	2.351044662	2.95E-08	2.04E-05
CBLN4	1.305351645	3.78E-08	2.54E-05
ADH1C	2.8853613	5.79E-08	3.78E-05
NR4A1	1.342056577	6.46E-08	4.10E-05
INMT	2.122427611	6.86E-08	4.24E-05
GIPC2	1.180847437	1.14E-07	6.87E-05
SNORD114-3	1.426779143	1.50E-07	8.36E-05
OXTR	3.840582699	1.65E-07	8.98E-05
PDGFA	2.560410908	2.18E-07	0.000115992
OSR1	3.209325036	2.25E-07	0.000116693
FIGF	2.604595087	2.50E-07	0.000127012
RGCC	1.802068113	2.64E-07	0.000131069
ANK2	1.317408209	2.80E-07	0.000135493
LOC284825	2.23724985	2.84E-07	0.000135493
TMEM132C	1.563759813	2.99E-07	0.000139564
PAMR1	2.645496283	3.41E-07	0.000154666
CXCL3	2.594076667	3.45E-07	0.000154666
SCN4B	3.205565993	3.85E-07	0.000166077
CSRP1	1.731915767	4.10E-07	0.000173506
TRIM59	-2.303145078	4.73E-07	0.000191571
ABCA6	2.811832308	4.78E-07	0.000191571
FOSB	4.309123943	4.87E-07	0.000191891
BCO2	1.193790071	6.27E-07	0.000243122
PGM5-AS1	1.85747974	6.86E-07	0.000261454
TMEM178A	3.383201181	8.12E-07	0.000301719
PEAR1	2.08787164	8.23E-07	0.000301719
ABCB1	1.542663503	8.42E-07	0.000301719
MOCS1	1.040851693	8.45E-07	0.000301719
MIR6883	1.298962079	9.45E-07	0.000332314

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
TSHZ2	2.353201576	1.07E-06	0.000368994
EDN3	1.558999702	1.30E-06	0.000440282
HLF	2.673782279	1.31E-06	0.000440282
FREM1	1.116096291	1.52E-06	0.000503926
MGARP	1.482551909	1.61E-06	0.000525165
KANK3	1.331465405	1.68E-06	0.00053221
YPEL4	1.414283002	1.95E-06	0.000601166
ADAM33	1.398183849	2.04E-06	0.000617539
SPRY2	2.701719813	2.05E-06	0.000617539
LRRN4CL	2.611456	2.52E-06	0.000740293
TMEM88	1.000498971	2.53E-06	0.000740293
ZNF331	1.520829637	2.59E-06	0.00075078
MYH11	1.737819949	2.70E-06	0.00077088
CSN2	1.026696899	3.15E-06	0.000887849
EPB41L4A-AS1	1.524707456	4.33E-06	0.001177978
GDF10	1.088499698	4.46E-06	0.001200435
PPP1R15A	1.359480855	5.03E-06	0.001318057
NRXN2	1.266984538	5.07E-06	0.001318057
CLDN5	1.479373458	5.48E-06	0.001408239
CACHD1	1.498873894	6.30E-06	0.001601559
SLIT2	2.485082495	6.74E-06	0.001693075
IGFBP6	2.338372838	7.15E-06	0.001777464
TCEAL7	3.032199009	7.95E-06	0.001954795
CLEC3B	2.549456304	8.74E-06	0.002103679
C4BPA	1.391230617	8.85E-06	0.00210773
PPAP2B	1.818948008	9.37E-06	0.002195573
GRAMD3	1.910620217	9.41E-06	0.002195573
EGR1	3.129063343	1.09E-05	0.002505951
CCDC178	1.343760456	1.23E-05	0.002783488
MAFF	2.085935286	1.42E-05	0.003126732
MEOX2	1.664205495	1.42E-05	0.003126732
LOC286058	1.333290268	1.44E-05	0.003134638
CSRNP3	1.562884446	1.68E-05	0.003627006
F10	1.083756356	1.83E-05	0.003907947
AQP1	2.066043776	1.85E-05	0.003907947
SNORD3A	2.953168483	1.87E-05	0.003915327
ZWINT	-2.336920873	1.89E-05	0.003929411
ZFP36	2.041272178	1.97E-05	0.0040594
PROS1	2.294875122	2.16E-05	0.004401783
AK021977	2.081389647	2.25E-05	0.004552323
ARID5A	1.333935141	2.38E-05	0.004699963
GPR133	1.841163586	2.42E-05	0.004699963
HOXA4	1.352083437	2.45E-05	0.004699963
FAM150B	3.886448886	2.61E-05	0.0049004
RNF180	1.102984698	2.62E-05	0.0049004
CCDC8	2.426049257	2.67E-05	0.00491077
MYLK	1.461808094	2.68E-05	0.00491077
ZNF300P1	2.027004818	2.69E-05	0.00491077
LHFP	1.981342522	2.71E-05	0.00491077
AKAP12	1.596740741	3.12E-05	0.005608676
MFAP4	2.769650691	3.25E-05	0.005801416
JUN	1.833548577	3.34E-05	0.005916909
NR3C2	2.531935241	3.38E-05	0.005916909
TMEM130	1.48439734	3.39E-05	0.005916909
CORO2B	1.471977477	3.45E-05	0.005978994
WIF1	4.096594959	3.54E-05	0.006087222
ANKRD29	2.121952604	3.75E-05	0.006343354
JAM2	2.087167487	3.80E-05	0.006389785
C2orf40	5.23724413	4.02E-05	0.006696928

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
GNG11	1.480788847	4.04E-05	0.006696928
DPP3	-1.465782363	4.18E-05	0.00687719
NR4A3	1.659421791	4.56E-05	0.00739907
HN1	-1.892999154	4.66E-05	0.007464153
PSMD14	-1.232122143	5.21E-05	0.00826604
CNN1	2.807213944	5.53E-05	0.008722013
PDE2A	1.298328572	5.59E-05	0.008753901
FAT4	1.7804456	5.69E-05	0.008798543
CBX7	1.627130721	5.70E-05	0.008798543
ARRDC3	1.462198047	5.84E-05	0.008896059
LMOD1	1.264553891	5.86E-05	0.008896059
MICU3	1.943543098	5.89E-05	0.008896059
MEG3	1.130837837	6.14E-05	0.009085558
MTCH2	-1.092353866	6.16E-05	0.009085558
KLF2	1.389563301	6.28E-05	0.009089119
LIMS2	1.119917763	6.31E-05	0.009089119
FAT2	2.112305101	6.34E-05	0.009089119
CDK1	-2.360680488	6.35E-05	0.009089119
PTGFR	1.298937687	6.79E-05	0.009491213
EBF1	2.138055121	6.91E-05	0.00957172
CASQ2	1.432662429	7.44E-05	0.010189004
C8orf88	1.861939581	7.55E-05	0.010276266
LOC100506834	1.342075514	8.04E-05	0.010805944
CCL14	2.650380271	8.13E-05	0.010869468
IER2	1.438478199	8.48E-05	0.011276224
ABCA8	1.578353463	8.63E-05	0.011338143
IL33	2.683764219	8.64E-05	0.011338143
DUSP1	1.423847032	8.90E-05	0.01143019
GNAL	1.426879119	8.96E-05	0.011446852
SOX7	1.919418819	9.11E-05	0.011505442
SPRY1	1.738001094	9.31E-05	0.011631648
CLDN11	1.197872563	9.31E-05	0.011631648
MRGPRF	1.697864191	0.000100005	0.012292053
MMRN2	1.05982956	0.000113504	0.013802845
VIT	2.396171761	0.000115311	0.013948418
RELN	2.373843913	0.000117645	0.014032196
DQ592442	1.880090911	0.000117698	0.014032196
MIR143HG	1.948976482	0.000120696	0.01424985
EDNRB	1.655916564	0.000121541	0.01424985
JUNB	1.554151785	0.000121543	0.01424985
AASS	1.775165131	0.000122296	0.014264921
DST	1.349581327	0.000123031	0.01427784
GPRASP1	2.104932696	0.000131732	0.014909148
RERGL	2.490768531	0.00014477	0.016230192
EMCN	2.041114257	0.000144824	0.016230192
TPX2	-3.385723173	0.000149979	0.016673204
BOC	1.622215775	0.000151885	0.016774807
C1QTNF7	1.241797679	0.000153367	0.016857141
MIR205HG	3.292849643	0.00015832	0.017318222
ATF3	1.673840713	0.000176032	0.019163966
LINC00086	1.831759232	0.000178437	0.019333733
FAM189A2	3.135764898	0.000181937	0.019620036
UHRF1	-2.674994209	0.000194555	0.020687938
CYYR1	1.944910812	0.000204453	0.021540067
TUBG1	-1.276812715	0.000209861	0.021907957
HYMAI	1.948271852	0.00021153	0.021981771
DLC1	1.042423686	0.000214711	0.022114883
RASL10A	1.566323863	0.000218765	0.0222934
PARP1	-1.05827296	0.00021905	0.0222934

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
MELK	-3.342779305	0.000220379	0.0222934
SCN7A	1.398463011	0.000227534	0.022815297
DKK2	1.053409431	0.000238052	0.023559953
LRRN3	1.610949762	0.00024091	0.023638142
SPHKAP	1.766471321	0.00024445	0.023881764
SLC26A6	1.11355325	0.00024989	0.024121642
RBMS3	1.555947637	0.000257381	0.024649088
EGR2	2.459312552	0.000257682	0.024649088
LAMA2	1.867987044	0.000278508	0.026310968
ALDH1A1	2.457691156	0.000285113	0.026775116
PGP	-1.009783998	0.000286773	0.026775116
GLRX2	-1.410080141	0.000286935	0.026775116
ACVR2A	1.184746124	0.000306998	0.028124626
KIF4A	-2.905733309	0.000307548	0.028124626
CKS2	-2.154177752	0.000316168	0.028550535
CDKN1C	1.950043532	0.000323439	0.028997885
CCNF	-1.180836654	0.000327942	0.029275769
CCDC167	-1.700840536	0.000329099	0.029275769
CHRD1	2.947428557	0.000344187	0.030499228
ADAMTS5	1.979229552	0.000362545	0.03187883
CAV1	1.844851315	0.000368525	0.032280558
IL6	2.742949912	0.0003786	0.033036453
SLC27A1	1.181218606	0.000386969	0.033510916
GPIHBP1	1.032723436	0.000397044	0.034066114
PLAC9	1.111643936	0.00039785	0.034066114
GGTA1P	2.15794362	0.000403181	0.034265857
SHE	1.025097526	0.000416245	0.035245175
CGB7	1.143788544	0.000417929	0.035257178
CPED1	1.140259107	0.000420107	0.035310608
BHLHE22	1.042829841	0.000429483	0.035772997
FAM83D	-3.344994427	0.000430707	0.035772997
RUNX1T1	1.226302347	0.000431867	0.035772997
TMEM220	1.355327696	0.000437086	0.036074562
UBE2T	-2.655551115	0.000442914	0.036424096
C7	1.910244371	0.000446851	0.036436809
WDFY3-AS2	1.225875753	0.00046084	0.037150353
SEMA6D	1.059160068	0.000461495	0.037150353
UACA	1.095414829	0.000484488	0.038593584
KLF4	1.932796394	0.000487	0.038658983
ITGA7	1.040433642	0.000506955	0.039543164
KIT	3.250421005	0.000521985	0.040045739
RABIF	-1.091625777	0.000527719	0.040350244
RP11-305O6.3	2.129055064	0.000538312	0.040886657
SEMA3G	2.01406563	0.000549403	0.041337845
ECSCR	1.15095876	0.000550072	0.041337845
RP1-193H18.2	1.662164814	0.000554468	0.041337845
TENM2	3.040445714	0.000555833	0.041337845
FLAD1	-1.40845504	0.000556909	0.041337845
TCF7L2	1.358074413	0.000567402	0.041844994
AL132709.8	1.139076872	0.000582944	0.042715594
KGFLP2	1.320739371	0.000596203	0.043448999
MRPL13	-1.631691386	0.000598008	0.043448999
AK026714	1.76962344	0.000613429	0.04438045
FGF2	1.469328308	0.000633302	0.045673638
COL17A1	2.029717154	0.000648299	0.046462105
IRX1	4.225949233	0.000678047	0.048141366
FMO2	2.892543278	0.000683792	0.048282943
PLEKHH2	1.582055768	0.000684265	0.048282943
PPP1R14A	2.101717863	0.000695866	0.048651027

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
TBX15	1.289272996	0.000712817	0.04944316
KNSTRN	-1.837945263	0.000715847	0.04944316
MIR646HG	1.72563471	0.00071813	0.049451442
CENPL	-1.738651589	0.000746728	0.050960276
LOC101927841	1.479732307	0.000750097	0.051027642
RRM2	-3.121144559	0.000752179	0.051027642
CFH	1.922571536	0.000754715	0.051048214
AMPD1	1.544521563	0.000779765	0.052343817
SMAD9	1.288986147	0.000780738	0.052343817
MAMDC2	3.37397078	0.00078315	0.052351967
LIMS3	1.362130486	0.000803038	0.053430865
CEP55	-3.060621083	0.000803964	0.053430865
UBE2C	-2.925722498	0.000809124	0.05361796
CTC-429P9.3	1.073961964	0.000821587	0.054019736
KLHL13	3.374562692	0.000822276	0.054019736
LOC728392	1.439999366	0.000828607	0.054124593
TNN	2.46270856	0.000844417	0.054402665
CCNB1	-2.30336931	0.000844873	0.054402665
KIF20A	-2.910925516	0.000847141	0.054402665
NR2F2-AS1	1.104380332	0.000861831	0.055145548
BRI3BP	-1.331189494	0.000865946	0.055145548
LAMTOR2	-1.024285082	0.000873161	0.055450584
HOTAIRM1	1.542344643	0.000890043	0.056160328
SLC52A2	-1.62319342	0.000891707	0.056160328
KLF10	1.018667404	0.000903129	0.056723473
OLFML2A	1.528483056	0.000939461	0.058658594
EMP1	1.265766031	0.000946768	0.058658594
RYR3	1.949214945	0.000964051	0.059178061
ANXA1	2.015410063	0.000965507	0.059178061
IL17B	1.822767397	0.00096999	0.059293897
KIF11	-2.209136522	0.00098849	0.060103337
YKT6	-1.194679603	0.000991904	0.060150974
FOS	2.982710767	0.000996495	0.06026949
NPL	-1.200968201	0.001002974	0.060501324
MEOX1	1.581088868	0.00100904	0.06056626
KIAA0101	-1.835321414	0.001009349	0.06056626
CDC48	-2.159975066	0.001033594	0.061858677
THSD7B	1.270067841	0.001060738	0.063072828
LALBA	2.200315413	0.001069011	0.063072828
IFI30	-1.717822876	0.001073331	0.063080945
SFRP1	3.333999334	0.001085649	0.063320103
KIF18B	-2.496027579	0.001099814	0.063804049
CENPE	-2.411289312	0.001104213	0.063804049
FGF1	1.40152546	0.00113094	0.06496367
C11orf48	-1.092305379	0.001150209	0.065740182
PIGR	2.673179111	0.001192721	0.067830807
HOXA7	1.701922634	0.001203495	0.068112572
ANLN	-2.99807434	0.001219899	0.068692927
HMGB3	-2.316886087	0.001245611	0.069889097
CD302	1.546508804	0.001247255	0.069889097
KL	1.100592899	0.001252468	0.070009599
HMMR	-2.556827954	0.001287745	0.071631187
NOV	2.246116435	0.00129613	0.071871906
ATAD2	-2.051741294	0.00129836	0.071871906
ANKRD35	1.589939172	0.001328573	0.073031347
TK1	-2.041913081	0.001333584	0.073031347
TGFBR3	2.558468145	0.001350962	0.073362669
COPG2IT1	1.692291885	0.001356586	0.073493541
AURKA	-1.720036985	0.001387626	0.07482054

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
ITIH5	1.457754633	0.001415047	0.075717843
RMI1	-1.136342066	0.001420558	0.075717843
ACP2	-1.04958927	0.001420827	0.075717843
ZBTB20	1.668502259	0.001428931	0.075972625
ANGPTL1	1.02764456	0.00145098	0.076611303
ACKR1	2.360631804	0.001452231	0.076611303
RACGAP1	-1.845246621	0.001454348	0.076611303
HOXA5	2.511684027	0.001465785	0.077020612
PAK3	1.69456648	0.001468929	0.077020612
ITM2A	2.599581915	0.001472225	0.077020612
MIR101-1	1.247941766	0.001513336	0.07899063
NEK2	-2.324835609	0.001532324	0.079514818
NR3C1	1.100800951	0.001534157	0.079514818
FBLN5	2.073301824	0.001611296	0.082397934
PDGFD	1.721604869	0.001639845	0.083311403
RP1-142L7.8	1.32690271	0.001670867	0.084661782
LMNB2	-1.358668328	0.001722878	0.086758649
C20orf24	-1.164135174	0.001745189	0.087689031
MIR205	1.555373564	0.001771632	0.088434585
APITD1	-1.210945468	0.00183917	0.091208465
SAC3D1	-1.225374261	0.00185114	0.091603399
CDKN3	-2.519569572	0.00187727	0.092496011
CAV2	1.254498841	0.001901498	0.093141281
SH3BGRL2	1.71056334	0.001908887	0.093141281
TNNI2	1.362666906	0.001910635	0.093141281
CDCA5	-2.028942494	0.001921329	0.093141281
KPNA2	-1.673000412	0.001922959	0.093141281
RP11-138A9.1	1.375082551	0.001934657	0.093509771
SLC50A1	-1.227120933	0.001951015	0.093540588
GPR124	1.270180534	0.001960093	0.0935525
COL11A1	-3.516617354	0.00197819	0.094023644
ID4	2.279985789	0.002000225	0.094677327
DDX17	1.133772713	0.002057578	0.096990396
NIPSNAP3B	1.032332786	0.002065934	0.097053413
OGN	3.861654877	0.002067931	0.097053413
LOC102724229	1.701213394	0.00207165	0.097053413
PBK	-3.010242244	0.002111539	0.098317819
PTTG1	-2.317510636	0.002111541	0.098317819
SPAG1	-1.933316224	0.00212634	0.098709158
FLJ25694	1.725501433	0.002142371	0.098882258
TPT1-AS1	1.188803258	0.002150277	0.098882258
OIP5	-2.070186045	0.002163663	0.098882258
LOC202025	1.19807876	0.002168625	0.098882258
SEMA5A	1.629313738	0.002179891	0.098882258
PLSCR4	1.84581386	0.002240079	0.100119159
FLRT2	1.235942536	0.002240429	0.100119159
BUB1B	-2.402696259	0.002242193	0.100119159
NUSAP1	-2.29674497	0.002262642	0.100639152
PRPS1	-1.034238525	0.002300265	0.102113889
LINC00936	1.046561985	0.002326073	0.102677141
ALDH7A1	1.005917851	0.002349088	0.102696455
SMC4	-1.110066283	0.002349324	0.102696455
CPZ	1.275618959	0.002393234	0.104217346
NDRG2	1.381666613	0.002400991	0.10435639
RSP01	1.111011391	0.00250608	0.107091574
SCN2A	1.138446423	0.00252681	0.10755354
LRP4	1.269511829	0.002531004	0.10755354
MTHFD2	-1.318860798	0.002553978	0.108074554
GDE1	-1.005572928	0.002557446	0.108074554

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
OLFML1	1.518255328	0.002566679	0.108151759
RUNDC3B	1.494825648	0.002631781	0.110197389
PTPRZ1	2.937411015	0.002651915	0.110773813
MKI67	-2.012287285	0.002655238	0.110773813
DARS2	-1.308731814	0.002678085	0.111523439
PELI1	1.47376561	0.00273922	0.113449368
PTN	2.351090692	0.002798501	0.115278052
TROAP	-1.47036162	0.002810873	0.115371954
PDLIM3	1.467589956	0.002860479	0.117197599
RP11-29H23.4	-1.335062225	0.002889759	0.117764137
HOXA3	1.244370385	0.002945271	0.118756222
KIF15	-2.205790096	0.002960096	0.118934486
KRT15	3.741178196	0.00297741	0.119143414
AMT	1.119341316	0.00298093	0.119143414
PLP1	1.378187206	0.003019477	0.120263546
TRIP13	-2.543373922	0.00303688	0.120746349
FAM162B	1.211474259	0.003127733	0.123697009
APOO	-1.064610774	0.003136581	0.123697009
MIR100HG	2.267215081	0.003142992	0.123697009
CCL28	3.097755946	0.00316712	0.123697009
ESRP1	-1.3055012	0.003168731	0.123697009
RGS2	2.209060428	0.003174397	0.123697009
CDC42EP5	2.130749242	0.003179976	0.123697009
CDK5	-1.045227293	0.003181851	0.123697009
MAML2	1.35236073	0.00320287	0.123697009
ADAMTS18	1.200747862	0.00321312	0.123874249
CAPN3	1.127876965	0.003252236	0.124752698
RP1-228H13.5	-1.113230057	0.00333187	0.126088713
TSTA3	-1.304393364	0.003335353	0.126088713
KERA	2.021722275	0.003354124	0.126537925
PLAGL1	1.77937983	0.003367467	0.126832009
RGN	1.763101196	0.003404712	0.127604682
CX3CL1	2.251773098	0.003413667	0.127604682
TOP2A	-2.29014979	0.003434403	0.128027631
PALMD	1.370911253	0.003486373	0.12829638
IER5	1.132077849	0.003487927	0.12829638
APOLD1	1.242952631	0.003501747	0.12829638
RP11-2E11.9	1.334214512	0.003514413	0.128554415
LOC100506558	1.532173114	0.003554594	0.12960944
NTRK2	1.420592673	0.003577242	0.130220348
DLGAP5	-2.71020756	0.003621305	0.13120487
PRELP	1.514711259	0.003695939	0.132701195
RGL1	1.265911065	0.003700954	0.132701195
CSRP1	1.333815274	0.003710412	0.1327503
FGFBP2	1.115036973	0.003756998	0.133675093
FBLN7	1.368112605	0.003759649	0.133675093
ASPM	-1.956431791	0.003890533	0.136414271
LAMB3	2.461806393	0.003896357	0.136414271
LGR6	1.524335239	0.003920058	0.1370342
SYNPO2	1.335762964	0.003956911	0.137602518
KCNT2	1.177147935	0.003959815	0.137602518
ELTD1	1.310398251	0.003967457	0.137602518
BACH2	1.111070365	0.003973172	0.137602518
TNFSF4	-2.052581711	0.004015145	0.137972927
OLFM4	3.359066345	0.004025062	0.137972927
TMEM213	2.294298274	0.004025359	0.137972927
DKK3	1.357052567	0.004088193	0.139707441
EDN1	1.567453565	0.004154853	0.141351568
C8orf76	-1.148294007	0.004197528	0.142591219

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
RNF128	2.581298159	0.004236842	0.143149749
MEIS2	1.828498581	0.00423706	0.143149749
BICC1	1.285351296	0.004240066	0.143149749
ORMDL2	-1.191531889	0.004415415	0.147580733
FAM3D	1.621579096	0.00442588	0.147714542
PCNA	-1.025658991	0.004459235	0.148394507
ESPL1	-1.58125445	0.004522849	0.149367488
LOC100131541	1.755331665	0.00453509	0.149396582
KLF6	1.123142836	0.004605863	0.150642684
SRPX	2.072488351	0.004622898	0.150983851
PCDH18	1.508635787	0.004661739	0.152035205
AIFM1	-1.121982138	0.004695044	0.152685763
CEMP	-1.538502342	0.004728858	0.153446785
TMEM237	1.234933011	0.004739423	0.153446785
ADD3	1.12557357	0.004783938	0.153767127
ADCY4	1.099784129	0.004797994	0.153845369
LIF	1.417421548	0.004862168	0.155450925
TIPARP	1.257609762	0.004941088	0.157116173
ZWILCH	-1.250112814	0.004952938	0.157269541
GEM	1.775070117	0.004960283	0.157284316
CYR61	1.880684952	0.005012497	0.158281359
HMOX1	-1.519246465	0.005033314	0.158691913
PCK2	-1.143325605	0.005086686	0.159522391
KRT14	4.754526265	0.00512398	0.160471816
ADAMDEC1	-3.718519396	0.005235122	0.163302172
CCNA2	-1.991567171	0.005241456	0.163302172
KIF2C	-2.055120243	0.005268015	0.163844805
IFFO2	1.425654134	0.005295494	0.163844805
RP11-247L20.4	1.031368567	0.005351165	0.165322084
NCAPG	-2.258841829	0.005402497	0.166010597
SYNM	3.110175792	0.005424822	0.166472861
AF070581	1.71941774	0.005467899	0.166898679
TACC3	-1.497732865	0.005489377	0.167213481
SSPN	1.125385192	0.005496761	0.167213481
PIK3C2G	1.923304051	0.005500155	0.167213481
MGC12488	1.084426246	0.005512645	0.167370633
BIRC5	-2.212356596	0.005558933	0.168328905
COL14A1	1.03284603	0.005587312	0.168518624
DPYSL2	1.257762127	0.005694556	0.1702436
PRC1	-2.287048871	0.005730484	0.1702436
CDCA3	-2.219849755	0.005757885	0.170330237
CNRIP1	1.353751025	0.005762191	0.170330237
EPHA2	1.265432305	0.005775425	0.170371297
ERCC6L	-1.351201543	0.00579245	0.170433722
CCNE2	-2.164361817	0.005901595	0.17262677
GALNT15	1.420747094	0.005934942	0.17262677
AK021804	2.058401655	0.005954138	0.172965054
COL6A6	1.265411169	0.006040005	0.175014698
ECM2	1.132523975	0.006057518	0.175299984
SOSTDC1	2.855682196	0.006128729	0.176769533
AMOTL2	1.216497127	0.006135222	0.176769533
SEMA6A	1.013032927	0.006139227	0.176769533
FXYP6	1.478267142	0.006149382	0.176839201
LOC286367	1.060923835	0.00618044	0.177286334
RRP7A	-1.077558893	0.006196838	0.177444804
CGNL1	1.019147915	0.006260538	0.178600076
ABI3BP	1.181279598	0.006265299	0.178600076
KIF14	-2.162744781	0.00637494	0.180823664
NME1	-1.45463404	0.006423614	0.181978525

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
MXI1	1.069957643	0.006513148	0.183831604
AL928768.3	1.936191046	0.006576478	0.18493411
SCN3B	1.092218995	0.006591293	0.185123028
GGCT	-1.06161982	0.006624426	0.18544953
LYVE1	1.011623682	0.006673541	0.185834962
DEPDC1B	-1.947910741	0.006705539	0.186272217
PIGW	-1.056433834	0.006838293	0.188585096
TDO2	-1.69727376	0.006885748	0.189209097
LINC00478	1.244648391	0.007013057	0.191556153
SPP1	-2.170044511	0.007030685	0.19165194
TMEM255A	1.601678213	0.007071213	0.192454836
CTSD	-1.290195212	0.007185417	0.194314267
SOX17	1.191167493	0.007192508	0.194314267
RP11-196G18.24	-1.579755064	0.007224527	0.194314267
AK5	2.260964998	0.007278981	0.195105295
ARMCX5-GPRASP2	1.496796905	0.007291808	0.195105295
PAQR4	-1.377867309	0.007313675	0.195105295
SOWAHC	1.25356373	0.007347442	0.195762731
IL17RD	1.396589276	0.00740434	0.196274961
GAS2L3	-1.523560072	0.007536113	0.19789619
DNA2	-1.214004051	0.007569754	0.19789619
P2RY12	1.394566361	0.007574104	0.19789619
ZNF677	1.086289651	0.007622931	0.198533173
BDH2	1.075257198	0.007669176	0.198600138
ZNF559	1.258158203	0.007943487	0.203363941
FEN1	-1.301939509	0.007977041	0.203610841
C1orf112	-1.550314923	0.007979849	0.203610841
AP2B1	-1.024783895	0.007992177	0.203698056
CLDN8	3.173540331	0.008009575	0.203914159
CPAMD8	1.768413513	0.008021119	0.203980884
THBD	1.115164295	0.008044167	0.204040689
NUF2	-2.329298489	0.008050245	0.204040689
CHST9	1.830191605	0.008064663	0.204179762
FAM64A	-1.51698603	0.008093229	0.204456634
MAD2L1	-1.608370562	0.008128591	0.204456634
C2orf88	1.425638083	0.008289338	0.206889564
CHAC2	-1.448457923	0.008317502	0.207140225
FZD7	2.009061346	0.008427897	0.208526614
KCTD12	1.115535251	0.008453865	0.208762025
E2F8	-2.292815023	0.00861928	0.209628421
RP4-635E18.8	1.185902499	0.008628307	0.209628421
FAXDC2	1.052923527	0.008654858	0.209941312
SLC38A5	-1.248920596	0.008659551	0.209941312
NR2F1	2.393649472	0.008679448	0.210200783
LOC286272	1.476232305	0.008737133	0.210324636
GOLGA8A	1.245466436	0.008738678	0.210324636
FKBP5	-1.522227497	0.008752297	0.210324636
DONSON	-1.287039516	0.00875816	0.210324636
CEBPD	1.470934636	0.008793684	0.210441637
UBE2S	-1.752863247	0.008842453	0.210837928
TCEAL2	1.879644606	0.008870664	0.210837928
SHCBP1	-1.88990892	0.008871255	0.210837928
KCTD14	2.364885079	0.00889291	0.210959002
PPEF1	-1.282452562	0.008973831	0.212135697
THSD7A	1.121788899	0.009039628	0.212836237
GTSE1	-1.198195227	0.009068467	0.213255119
SPAG5	-1.903141833	0.009076075	0.213255119
NCALD	1.023332521	0.009117272	0.213346035
SNRNP25	-1.050802869	0.009233844	0.214536732

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
FANCI	-1.312431849	0.009329085	0.214728744
RNASEH2A	-1.325576202	0.009409032	0.215540376
TMEM71	2.184860883	0.00943017	0.215808364
MT1M	2.393312837	0.0094701	0.216289134
FN1	-1.46053393	0.009490438	0.216352879
AUNIP	-1.174726349	0.009502808	0.216352879
ZCCHC24	1.539959291	0.009503094	0.216352879
KCNMB1	1.051414978	0.009797436	0.220244811
CDC20	-2.614531313	0.009901179	0.222140092
C12orf5	-1.272184887	0.009918051	0.222149104
NDC80	-2.187219458	0.009974288	0.222905339
CTD-2256P15.2	-1.127799432	0.009984855	0.222923588
DTL	-1.980464514	0.010055509	0.223627471
HSD17B6	-1.953537637	0.010114061	0.223852741
APCDD1L	1.188353286	0.010158081	0.224283933
SNX10	-1.711949626	0.010189401	0.224283933
DCN	1.309575021	0.010203824	0.224283933
APCDD1	1.82457268	0.010285991	0.225270746
CCT5	-1.010833818	0.010494245	0.228567844
CFD	2.081043112	0.010570151	0.229709875
MIR6787	-1.382889419	0.010603729	0.22979394
SLC39A4	-1.586951388	0.010760065	0.231404923
CRYBG3	1.047144891	0.010795302	0.231697871
DEPDC1	-1.99550838	0.010817143	0.231697871
NAP1L2	1.600727862	0.010910341	0.232679312
FOXMI	-2.38087795	0.010933232	0.232733297
MYC	2.201906053	0.011171057	0.23625598
MMP11	-1.790525416	0.011277609	0.236974906
FPR3	-1.574673556	0.01138814	0.238202798
MFGE8	1.665584768	0.011499453	0.238682838
DDIAS	-1.653286167	0.011505354	0.238682838
CTHRC1	-1.64529086	0.011563669	0.238682838
NFIB	1.801622563	0.011691233	0.240580525
CKMT2	1.126949366	0.011774575	0.24164303
C11orf96	1.352932297	0.011854414	0.242513698
APOD	3.737313963	0.011934938	0.243114792
LTBP2	1.508542831	0.011964952	0.243114792
PDGFRL	2.020787235	0.01196819	0.243114792
ILF3-AS1	1.085887003	0.012000752	0.243228001
EXO1	-2.038370163	0.012068287	0.243732485
ENPP2	1.864276781	0.012212954	0.244708643
COX7A1	1.475697229	0.012367967	0.246798526
SLC6A14	3.980072557	0.012371232	0.246798526
CH25H	1.646271041	0.01254159	0.24911019
MTFR2	-1.106352801	0.012552994	0.249120278
GIN51	-1.812918102	0.012622439	0.249830091
SRXN1	-1.116713192	0.012643386	0.249830091
CENPK	-1.519512679	0.012746533	0.250820582
PRNP	1.236046056	0.013127975	0.254368635
CPE	1.795834424	0.01316237	0.254368635
CSN1S1	2.239709698	0.013236448	0.254938228
ZNF667	1.607415003	0.013334133	0.255953402
PLIN1	2.132616073	0.013345134	0.255953402
TTK	-2.409386025	0.013384454	0.256492354
HILPDA	-1.613449178	0.013431655	0.25696611
FHL1	1.590106117	0.013587642	0.25859225
LOC101928102	1.237971696	0.013950724	0.26250326
NAP1L5	1.535031596	0.013979925	0.262836377
TENC1	1.024329607	0.014025543	0.263356425

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
PVRL3	1.289723875	0.014067154	0.263609235
PTRF	1.139602299	0.014225726	0.264533487
EZH2	-1.778671794	0.01424505	0.264533487
SIAH2	-1.346483729	0.014376399	0.265657142
TAGLN	1.295781775	0.014431497	0.265860504
RP11-319G9.3	1.120179908	0.014501916	0.266107473
MUSTN1	1.202130298	0.014558078	0.266121087
LINC00341	1.209266225	0.014593176	0.266476988
IGF1	1.428900638	0.014777277	0.267784505
RAD51	-1.012860265	0.01481134	0.2678236
NCEH1	-1.48440142	0.01484583	0.2678236
HEY1	1.197212589	0.014854358	0.2678236
TMTC1	1.274594177	0.014869978	0.26789396
RASL12	1.184487976	0.014890369	0.268050085
SETBP1	1.827741507	0.015065371	0.270561273
IRS2	1.684175662	0.015218685	0.272245362
IGDCC4	1.55925415	0.015268629	0.272712031
FZD10	1.634121544	0.015569634	0.275486004
SOX10	1.71851464	0.015643307	0.275894896
CERS6	-1.177448633	0.015687522	0.276095559
SPARCL1	1.622820194	0.016136153	0.280322745
PSRC1	-1.205587072	0.016211751	0.28120868
PTPN14	1.01602793	0.016233047	0.281262715
MOB3B	1.119991941	0.016403356	0.281660451
RAD54L	-1.161395844	0.016410114	0.281660451
ADH1B	1.982876964	0.016447782	0.281880948
ADORA3	-1.218777846	0.016483517	0.282067641
MAPK13	-1.076529979	0.016495689	0.282067641
MEIS1	1.440693524	0.016570173	0.282427898
MCM10	-1.831544496	0.016631411	0.283117888
ZNF423	1.405064904	0.016747048	0.284028948
TM4SF18	1.691614597	0.017547642	0.293255981
SPC25	-1.606755341	0.017584933	0.293520454
ADHFE1	1.043789258	0.017597208	0.293520454
CENPA	-1.16751521	0.017614822	0.293520454
EGR3	2.413577614	0.017725083	0.294480391
NDN	1.405183347	0.018080452	0.297596869
GJB2	-2.891132637	0.018237119	0.298037921
DOPEY2	-1.000793361	0.018340201	0.299281711
LINC01094	-1.290241839	0.018374642	0.299460839
CRISPLD1	2.930476095	0.018377375	0.299460839
TSPAN7	1.537179958	0.018632653	0.300084701
CXCL12	1.679731782	0.018651927	0.300084701
SLAMF8	-1.892683704	0.019020493	0.30260718
FCER1A	1.073400762	0.019189966	0.3038755
MME	1.544257115	0.019192647	0.3038755
IGF2	1.198959418	0.019276631	0.304352447
RP11-127B20.2	1.344152134	0.019417502	0.305942758
GAS6	1.201377599	0.01974044	0.307842308
TFPI	1.197245454	0.0202665	0.312218817
CENPU	-1.272798719	0.020327624	0.312528669
CX3CR1	1.66868909	0.020489513	0.313142602
ELF3	1.392311247	0.020490829	0.313142602
LOC100288911	1.411064535	0.020769044	0.314868623
CRIM1	1.249702845	0.020867145	0.315019848
DBF4	-1.235875002	0.020903032	0.315019848
LOC102725271	-1.516426243	0.021025015	0.315609913
RSPO3	1.565548832	0.02109866	0.316125107
CD300LF	-1.29421395	0.0211294	0.316125107

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
SCARA3	1.610622097	0.021293626	0.317556995
PKD2	1.034206568	0.021338762	0.317888602
SH3BP5	1.057652939	0.021441813	0.318727395
HJURP	-1.677268387	0.021533632	0.319229562
CDO1	1.106700254	0.021545412	0.319229562
FAM149A	1.060164103	0.021590043	0.319683648
ISM1	1.193841902	0.021727332	0.320874133
ORC6	-1.280023543	0.021927508	0.321372287
MNS1	1.418298841	0.022118874	0.322722117
RAD51AP1	-1.609925457	0.02213144	0.322722117
ACP5	-1.601142319	0.022509491	0.325703791
LAGE3	-1.243435965	0.022543833	0.325752447
SGOL2	-1.149902119	0.022674759	0.326647975
ITGA2	1.196286394	0.022710687	0.326753761
SNHG3	-1.049132527	0.022768111	0.326962658
DDX26B	1.0824181	0.022793709	0.32712478
AOC3	1.442505326	0.022975723	0.327954574
DHTKD1	-1.121529757	0.022980633	0.327954574
CTTNBP2	1.047653437	0.023607692	0.333571728
ESM1	-1.001328838	0.023719964	0.334783048
COL4A6	1.2310531	0.023722707	0.334783048
ANO1	1.464793198	0.023775024	0.335107647
SQLE	-1.504555344	0.023846844	0.335445628
C1R	1.178440609	0.023925853	0.335954111
TRPC1	1.026147502	0.023933438	0.335954111
ADAMTS1	1.754081925	0.024017798	0.335954111
PLEKHA4	1.096859169	0.024026112	0.335954111
MMP9	-2.352719099	0.024135342	0.336822773
TNMD	1.205808503	0.024227618	0.336850713
PIK3R1	1.318787656	0.024279672	0.33702603
DUSP6	1.533003435	0.024378495	0.337466506
FHOD3	1.528823104	0.024393005	0.337466506
BORA	-1.177349741	0.024473777	0.337685148
ABRACL	-1.167178379	0.024578525	0.337685148
SSBP2	1.034622244	0.024584605	0.337685148
CMYA5	1.563466062	0.024801528	0.339731893
PLAC1	-1.353563386	0.025222449	0.34224272
ANXA8	1.190321293	0.025339051	0.342297577
PTGS2	2.593119097	0.025347288	0.342297577
KRT5	2.891141836	0.025348167	0.342297577
FNDC1	-1.961292694	0.025809832	0.34607882
NDC1	-1.017568992	0.026076749	0.347959444
LOC100506100	-1.0307421	0.02610786	0.348033755
MT1X	1.238313083	0.026295548	0.349720076
FRZB	1.109706843	0.02647401	0.350940605
ARL4A	1.244033805	0.026506332	0.350942037
RAC3	-1.055212317	0.026706314	0.351897698
KMO	-2.331852467	0.026965584	0.353085436
STIL	-1.400411854	0.027132608	0.354460389
RASSF10	2.807112345	0.027293463	0.356288427
ARHGAP36	2.133114007	0.027343332	0.356288427
TLCD1	-1.556027973	0.027462199	0.357064123
SLC6A8	-1.353679595	0.027740297	0.357594252
DCX	1.975747906	0.027917264	0.358317843
TRIM29	1.379435237	0.028104424	0.358523288
FAM72A	-1.901843353	0.028164982	0.358523288
RNA45S5	1.45592974	0.028381196	0.360673103
LSR	-1.026578581	0.028485412	0.360926476
KDELR3	-1.241990964	0.028760119	0.361959945

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
CMTM7	1.126636535	0.028933941	0.363255223
ROPN1B	2.87941307	0.028967015	0.363470859
SORD	-1.417600695	0.02915455	0.364423907
KIF21A	-1.191095112	0.029436723	0.36604737
CTPS1	-1.238938988	0.029834678	0.36837457
MAP3K8	1.141125695	0.030284887	0.370360316
GRAMD1C	1.384151974	0.030497452	0.370954141
CIART	-1.456895434	0.030622174	0.371121054
TCF4	1.026885285	0.030835499	0.372038166
EOGT	1.058169428	0.03138681	0.373545599
RAD54B	-1.249607526	0.031512127	0.374088778
MYZAP	1.201236103	0.031601444	0.37433794
DMKN	1.991740441	0.031630449	0.374487483
RBP7	1.642376682	0.031819202	0.375817726
SKA2	-1.044043183	0.031990459	0.376408047
PODXL	1.14852371	0.032056457	0.376408047
AURKB	-1.122134046	0.032323431	0.378109148
GPM6B	1.887351572	0.032474472	0.378598354
AGPAT9	1.527407718	0.032839789	0.379972767
EGF	1.934048172	0.03323879	0.382053906
PTTG3P	-1.030520364	0.033364029	0.382723748
NCAPH	-1.54702336	0.033547231	0.382953669
SLC2A3	1.113152629	0.033904278	0.384640295
SLC5A1	1.41211543	0.033909265	0.384640295
CENPM	-1.312313016	0.033944222	0.384640295
CCL21	1.508440225	0.034016982	0.384640295
LPPR4	1.070715756	0.034136815	0.385590842
ZNF521	1.546180631	0.03417734	0.385638224
EVA1C	1.406691931	0.034191614	0.385638224
SLC28A3	1.913518358	0.034336316	0.38631735
HPSE	-1.019200262	0.034476078	0.386558162
FTX	1.153861739	0.03459075	0.387274106
NAP1L3	1.63107963	0.034659708	0.387856214
NCAPG2	-1.214833499	0.034682382	0.387920072
POLE2	-1.209545346	0.034927379	0.3891373
COL21A1	1.243372234	0.035062122	0.390448241
ITGA6	1.347403819	0.035462832	0.392391873
ZNF608	1.051506323	0.035554792	0.39259167
STOX2	1.149812514	0.035599526	0.39259167
CFI	1.403565116	0.036254712	0.39563495
FBXO17	1.046264799	0.036543135	0.397054696
GALNT16	1.093108954	0.036668915	0.397687261
AREG	1.504190381	0.037161158	0.399465589
TMEM47	1.508356616	0.037223849	0.399465589
GABRP	4.103095317	0.037252219	0.399465589
DBNDD1	-1.175941486	0.037602547	0.400843884
RND3	1.205607176	0.037629458	0.400843884
ANKRD22	-1.586533509	0.037870269	0.402168573
DIRAS3	1.870687894	0.037903919	0.402168573
MRPL15	-1.037021471	0.037929784	0.402168573
ZFP69B	-1.015289087	0.03800114	0.402213923
ZNF367	-1.192363738	0.038098471	0.402755406
SBK1	-1.197027065	0.038122767	0.402755406
PCDHB7	1.199535267	0.038199413	0.402910956
TMEM100	1.647512622	0.038212884	0.402910956
FAM3B	2.604355645	0.038499251	0.404675809
SYNGR3	-1.152880984	0.038764586	0.405005492
ASF1B	-1.02867685	0.03878008	0.405005492
TSHZ3	1.156981168	0.038919587	0.405005492

Table SI. Continued.

Gene	logFC	P-value	Adjusted P-value
KCNN4	1.726627459	0.039038654	0.405005492
ZNF204P	1.505199395	0.039107365	0.405475088
LAPTM5	-1.005096734	0.039439599	0.407257505
ROR1	1.021348128	0.039476194	0.407451349
NEIL3	-1.14099979	0.040608389	0.413352179
CLMP	1.153872611	0.040678218	0.413514208
CLU	1.329105045	0.040813447	0.413964967
SDC1	-1.23173105	0.041003492	0.415338224
SLC27A6	1.690177328	0.04113626	0.415533639
PLGRKT	-1.00062477	0.041149863	0.415533639
CCDC80	1.458116278	0.041382794	0.416844371
RALY-AS1	-1.041072048	0.041602511	0.417339449
SGCE	1.407499794	0.041685072	0.417510197
MCC	1.071190414	0.042321823	0.420730927
MND1	-1.555379469	0.042345458	0.420730927
HMGB3P1	-1.114958149	0.043497325	0.426796499
IDH2	-1.06349659	0.044155796	0.427459719
FRMD6	1.258558481	0.044163234	0.427459719
OMD	2.10135317	0.045160206	0.430194483
HIST1H4H	-2.273697776	0.045160824	0.430194483
CDC7	-1.130901861	0.045500874	0.431277354
APOBEC3B	-2.241931536	0.045583336	0.431691183
HCG11	1.175851389	0.045862151	0.432382408
EFEMP1	1.253142079	0.046110488	0.433283179
PLEKHF2	-1.206048645	0.046269468	0.433287193
MMP1	-3.938795463	0.046850303	0.436645591
CDT1	-1.0478251	0.04723836	0.438509441
BLM	-1.33207913	0.047838893	0.441896065
PHLDA1	1.064897386	0.048290116	0.443733376
MIA	2.17714775	0.048511657	0.444514998
LINC01139	1.13870165	0.049048174	0.445683372
SLC7A7	-1.066817048	0.049202202	0.446550513
NFIL3	1.326539524	0.049810043	0.449391165
DNMT3B	-1.231574352	0.049864665	0.449706495

FC, fold-change.

Table SII. Discovery and internal cohorts.

Discovery cohort	Internal cohort
TCGA-3C-AALI	TCGA-AR-A1AU
TCGA-5L-AAT1	TCGA-E9-A1N4
TCGA-A1-A0SB	TCGA-B6-A400
TCGA-A1-A0SD	TCGA-AR-A0U2
TCGA-A1-A0SE	TCGA-A2-A0YL
TCGA-A1-A0SF	TCGA-AO-A0JG
TCGA-A1-A0SI	TCGA-BH-A0E2
TCGA-A1-A0SK	TCGA-A2-A1G6
TCGA-A1-A0SM	TCGA-4H-AAAK
TCGA-A2-A04N	TCGA-AR-A251
TCGA-A2-A04T	TCGA-E2-A107
TCGA-A2-A04W	TCGA-3C-AAAU
TCGA-A2-A04Y	TCGA-AQ-A7U7
TCGA-A2-A0CO	TCGA-E9-A22E
TCGA-A2-A0CP	TCGA-D8-A27I
TCGA-A2-A0CQ	TCGA-D8-A1JC
TCGA-A2-A0CT	TCGA-A2-A0CK
TCGA-A2-A0CU	TCGA-AQ-A04H
TCGA-A2-A0CV	TCGA-E9-A1RG
TCGA-A2-A0D0	TCGA-E2-A108
TCGA-A2-A0D1	TCGA-AN-A0AS
TCGA-A2-A0EM	TCGA-BH-A1FR
TCGA-A2-A0EN	TCGA-A2-A0SW
TCGA-A2-A0EO	TCGA-C8-A131
TCGA-A2-A0EP	TCGA-A2-A0YJ
TCGA-A2-A0EQ	TCGA-BH-A0B5
TCGA-A2-A0EU	TCGA-B6-A0RV
TCGA-A2-A0EV	TCGA-E9-A1RI
TCGA-A2-A0SU	TCGA-AC-A3BB
TCGA-A2-A0SY	TCGA-C8-A8HR
TCGA-A2-A0T3	TCGA-AR-A1AR
TCGA-A2-A0T4	TCGA-A2-A0YH
TCGA-A2-A0T7	TCGA-EW-A1IZ
TCGA-A2-A0YD	TCGA-AR-A0TT
TCGA-A2-A0YF	TCGA-E2-A14X
TCGA-A2-A0YI	TCGA-A2-A0YT
TCGA-A2-A0YK	TCGA-B6-A0WW
TCGA-A2-A0YM	TCGA-A2-A0ET
TCGA-A2-A1FV	TCGA-D8-A1Y3
TCGA-A2-A1FX	TCGA-A2-A1FW
TCGA-A2-A1FZ	TCGA-A2-A25E
TCGA-A2-A1G4	TCGA-D8-A1XD
TCGA-A2-A259	TCGA-B6-A0IE
TCGA-A2-A25B	TCGA-AR-A0TZ
TCGA-A2-A25F	TCGA-B6-A0RI
TCGA-A2-A3XS	TCGA-B6-A409
TCGA-A2-A4RX	TCGA-AR-A24R
TCGA-A2-A4S0	TCGA-E9-A226
TCGA-A2-A4S1	TCGA-E2-A1B0
TCGA-A2-A4S2	TCGA-E2-A1L7
TCGA-A7-A0CD	TCGA-AR-A24O
TCGA-A7-A0CE	TCGA-BH-A1FM
TCGA-A7-A0CG	TCGA-BH-A1FH
TCGA-A7-A0CH	TCGA-A2-A0SV
TCGA-A7-A0CJ	TCGA-A2-A0CL
TCGA-A7-A0DA	TCGA-B6-A0WX
TCGA-A7-A0DB	TCGA-AR-A254
TCGA-A7-A0DC	TCGA-BH-A0E0
TCGA-A7-A13G	TCGA-A2-A0T1

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-A7-A26E	TCGA-A2-A0T2
TCGA-A7-A26F	TCGA-AO-A0JA
TCGA-A7-A26H	TCGA-D8-A27R
TCGA-A7-A26I	TCGA-E9-A6HE
TCGA-A7-A2KD	TCGA-A2-A0CS
TCGA-A7-A3IY	TCGA-E2-A15A
TCGA-A7-A3J0	TCGA-A7-A426
TCGA-A7-A3J1	TCGA-AQ-A1H3
TCGA-A7-A3RF	TCGA-BH-A28O
TCGA-A7-A425	TCGA-A2-A0YG
TCGA-A7-A4SB	TCGA-D8-A1X5
TCGA-A7-A4SC	TCGA-AR-A24T
TCGA-A7-A4SE	TCGA-AO-A0J9
TCGA-A7-A4SF	TCGA-E9-A1R2
TCGA-A7-A56D	TCGA-A2-A04P
TCGA-A7-A5ZV	TCGA-A2-A4RY
TCGA-A7-A6VV	TCGA-AC-A2FE
TCGA-A7-A6VX	TCGA-AC-A6IX
TCGA-AC-A23E	TCGA-D8-A3Z5
TCGA-AC-A2B8	TCGA-D8-A3Z6
TCGA-AC-A2BK	TCGA-EW-A2FR
TCGA-AC-A2FB	TCGA-A7-A5ZX
TCGA-AC-A2FF	TCGA-E2-A2P5
TCGA-AC-A2FM	TCGA-E9-A3Q9
TCGA-AC-A2QH	TCGA-A2-A25D
TCGA-AC-A2QI	TCGA-B6-A1KN
TCGA-AC-A3EH	TCGA-E2-A3DX
TCGA-AC-A3TN	TCGA-D8-A1XS
TCGA-AC-A3W5	TCGA-A2-A0EW
TCGA-AC-A3W6	TCGA-A2-A4RW
TCGA-AC-A3YI	TCGA-B6-A0IG
TCGA-AC-A3YJ	TCGA-A1-A0SN
TCGA-AC-A4ZE	TCGA-B6-A0I5
TCGA-AC-A5XS	TCGA-B6-A0I6
TCGA-AC-A5XU	TCGA-BH-A18R
TCGA-AC-A62V	TCGA-B6-A0WZ
TCGA-AC-A62X	TCGA-B6-A0X1
TCGA-AC-A6IW	TCGA-AN-A0AL
TCGA-AC-A6NO	TCGA-AC-A2QJ
TCGA-AC-A7VC	TCGA-AC-A3TM
TCGA-AC-A8OP	TCGA-AN-A0XW
TCGA-AC-A8OR	TCGA-B6-A0RT
TCGA-AC-A8OS	TCGA-AR-A2LJ
TCGA-AN-A03X	TCGA-B6-A0IQ
TCGA-AN-A03Y	TCGA-AN-A0FZ
TCGA-AN-A046	TCGA-BH-A0AZ
TCGA-AN-A049	TCGA-A2-A3KD
TCGA-AN-A04A	TCGA-B6-A3ZX
TCGA-AN-A0AJ	TCGA-AO-A0JB
TCGA-AN-A0AK	TCGA-BH-A18L
TCGA-AN-A0AM	TCGA-AR-A0TQ
TCGA-AN-A0AR	TCGA-AO-A0J5
TCGA-AN-A0AT	TCGA-D8-A27L
TCGA-AN-A0FD	TCGA-A1-A0SJ
TCGA-AN-A0FJ	TCGA-B6-A0WY
TCGA-AN-A0FK	TCGA-A7-A13F
TCGA-AN-A0FL	TCGA-AC-A2FK
TCGA-AN-A0FN	TCGA-BH-A1EV
TCGA-AN-A0FS	TCGA-GM-A3XG

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-AN-A0FV	TCGA-AR-A0TW
TCGA-AN-A0FW	TCGA-B6-A0RG
TCGA-AN-A0FY	TCGA-AO-A03M
TCGA-AN-A0G0	TCGA-BH-A0DG
TCGA-AN-A0XL	TCGA-BH-A0HA
TCGA-AN-A0XN	TCGA-AO-A03U
TCGA-AN-A0XO	TCGA-AN-A0FF
TCGA-AN-A0XP	TCGA-E9-A3QA
TCGA-AN-A0XR	TCGA-A2-A04X
TCGA-AN-A0XS	TCGA-BH-A1FN
TCGA-AN-A0XT	TCGA-AR-A0TU
TCGA-AN-A0XU	TCGA-E2-A14Y
TCGA-AN-A0XV	TCGA-BH-A0BL
TCGA-AO-A03L	TCGA-OL-A66I
TCGA-AO-A03O	TCGA-AO-A12F
TCGA-AO-A03T	TCGA-A2-A04R
TCGA-AO-A0J6	TCGA-A7-A0D9
TCGA-AO-A0J8	TCGA-E9-A229
TCGA-AO-A0JC	TCGA-E2-A11O
TCGA-AO-A0JD	TCGA-AO-A124
TCGA-AO-A0JE	TCGA-B6-A0RS
TCGA-AO-A0JI	TCGA-E9-A22D
TCGA-AO-A0JL	TCGA-EW-A11Y
TCGA-AO-A0JM	TCGA-A2-A04V
TCGA-AO-A125	TCGA-AO-A126
TCGA-AO-A128	TCGA-A1-A0SH
TCGA-AO-A129	TCGA-A2-A0T5
TCGA-AO-A12B	TCGA-BH-A0BQ
TCGA-AO-A12C	TCGA-E9-A1RB
TCGA-AO-A12E	TCGA-A1-A0SP
TCGA-AO-A12G	TCGA-D8-A1X7
TCGA-AO-A12H	TCGA-D8-A27F
TCGA-AO-A1KP	TCGA-A2-A0CM
TCGA-AO-A1KQ	TCGA-B6-A0RU
TCGA-AO-A1KR	TCGA-E2-A10A
TCGA-AO-A1KS	TCGA-E9-A5UO
TCGA-AQ-A0Y5	TCGA-PE-A5DE
TCGA-AQ-A1H2	TCGA-AO-A0J4
TCGA-AQ-A54N	TCGA-AO-A0J2
TCGA-AQ-A54O	TCGA-AO-A03V
TCGA-AR-A0TV	TCGA-B6-A0IJ
TCGA-AR-A0TY	TCGA-5L-AAT0
TCGA-AR-A0U0	TCGA-A2-A0D3
TCGA-AR-A1AH	TCGA-EW-A1P4
TCGA-AR-A1AJ	TCGA-AR-A0TP
TCGA-AR-A1AK	TCGA-EW-A1OX
TCGA-AR-A1AL	TCGA-OL-A6VO
TCGA-AR-A1AM	TCGA-E2-A1B6
TCGA-AR-A1AP	TCGA-E2-A574
TCGA-AR-A1AS	TCGA-E2-A15I
TCGA-AR-A1AW	TCGA-A2-A25A
TCGA-AR-A1AX	TCGA-BH-A1FU
TCGA-AR-A1AY	TCGA-BH-A0B9
TCGA-AR-A24H	TCGA-BH-A0AU
TCGA-AR-A24L	TCGA-BH-A2L8
TCGA-AR-A24M	TCGA-E9-A249
TCGA-AR-A24N	TCGA-AR-A256
TCGA-AR-A24S	TCGA-A2-A0D2
TCGA-AR-A24V	TCGA-D8-A1XF

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-AR-A24Z	TCGA-AQ-A04J
TCGA-AR-A250	TCGA-B6-A0I2
TCGA-AR-A255	TCGA-BH-A0H5
TCGA-AR-A2LE	TCGA-AO-A1KO
TCGA-AR-A2LH	TCGA-A2-A0EX
TCGA-AR-A2LK	TCGA-A2-A3XV
TCGA-AR-A2LL	TCGA-E2-A1B5
TCGA-AR-A2LN	TCGA-A7-A13D
TCGA-AR-A2LQ	TCGA-LL-A5YN
TCGA-AR-A5QM	TCGA-AR-A1AN
TCGA-AR-A5QN	TCGA-AR-A24K
TCGA-AR-A5QP	TCGA-BH-A6R8
TCGA-AR-A5QQ	TCGA-A2-A0CZ
TCGA-B6-A0I1	TCGA-E2-A1LS
TCGA-B6-A0IA	TCGA-A2-A3XZ
TCGA-B6-A0IB	TCGA-BH-A18K
TCGA-B6-A0IH	TCGA-BH-A0H3
TCGA-B6-A0IK	TCGA-Z7-A8R6
TCGA-B6-A0IM	TCGA-AO-A12A
TCGA-B6-A0IO	TCGA-E9-A22G
TCGA-B6-A0IP	TCGA-A2-A04U
TCGA-B6-A0RE	TCGA-E2-A15D
TCGA-B6-A0RH	TCGA-AR-A1AI
TCGA-B6-A0RL	TCGA-E2-A10F
TCGA-B6-A0RN	TCGA-BH-A0C3
TCGA-B6-A0RO	TCGA-B6-A402
TCGA-B6-A0RQ	TCGA-S3-AA14
TCGA-B6-A0WV	TCGA-AR-A24P
TCGA-B6-A0X0	TCGA-BH-A0B6
TCGA-B6-A1KI	TCGA-BH-A18V
TCGA-B6-A2IU	TCGA-AQ-A04L
TCGA-B6-A408	TCGA-E9-A1N8
TCGA-B6-A40B	TCGA-EW-A1P3
TCGA-B6-A40C	TCGA-E2-A150
TCGA-BH-A0AY	TCGA-A7-A6VW
TCGA-BH-A0B0	TCGA-A2-A04Q
TCGA-BH-A0B4	TCGA-D8-A1J9
TCGA-BH-A0B8	TCGA-E9-A1RA
TCGA-BH-A0BA	TCGA-OL-A6VR
TCGA-BH-A0BC	TCGA-E2-A573
TCGA-BH-A0BF	TCGA-A2-A0SX
TCGA-BH-A0BG	TCGA-AR-A24Q
TCGA-BH-A0BJ	TCGA-E9-A3HO
TCGA-BH-A0BO	TCGA-BH-A0DK
TCGA-BH-A0BP	TCGA-A7-A26J
TCGA-BH-A0BR	TCGA-OL-A6VQ
TCGA-BH-A0BW	TCGA-GM-A3XL
TCGA-BH-A0BZ	TCGA-A2-A3XX
TCGA-BH-A0C1	TCGA-AR-A1AQ
TCGA-BH-A0DD	TCGA-BH-A0W7
TCGA-BH-A0DE	TCGA-AR-A2LR
TCGA-BH-A0DL	TCGA-A2-A0T6
TCGA-BH-A0DO	TCGA-E2-A159
TCGA-BH-A0DP	TCGA-BH-A18F
TCGA-BH-A0DS	TCGA-A7-A26G
TCGA-BH-A0DV	TCGA-LL-A6FR
TCGA-BH-A0DX	TCGA-E2-A1LG
TCGA-BH-A0E6	TCGA-LL-A5YO
TCGA-BH-A0EB	TCGA-EW-A1PF

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-BH-A0EE	TCGA-AR-A252
TCGA-BH-A0H0	TCGA-GM-A2DL
TCGA-BH-A0H6	TCGA-A2-A0ES
TCGA-BH-A0H7	TCGA-A2-A0CX
TCGA-BH-A0H9	TCGA-E9-A243
TCGA-BH-A0HB	TCGA-EW-A2FW
TCGA-BH-A0HF	TCGA-AR-A24X
TCGA-BH-A0HI	TCGA-E2-A14T
TCGA-BH-A0HN	TCGA-A7-A4SD
TCGA-BH-A0HP	TCGA-AN-A0FX
TCGA-BH-A0HQ	TCGA-D8-A13Y
TCGA-BH-A0HW	TCGA-3C-AALK
TCGA-BH-A0HY	TCGA-BH-A0HU
TCGA-BH-A0RX	TCGA-GM-A2DI
TCGA-BH-A0WA	TCGA-BH-A0AV
TCGA-BH-A18G	TCGA-D8-A1XW
TCGA-BH-A18H	TCGA-E2-A1BD
TCGA-BH-A18I	TCGA-AC-A3QQ
TCGA-BH-A18M	TCGA-GM-A2DD
TCGA-BH-A18P	TCGA-A2-A0CR
TCGA-BH-A18S	TCGA-AO-A03P
TCGA-BH-A18U	TCGA-AR-A0U4
TCGA-BH-A1ET	TCGA-JL-A3YX
TCGA-BH-A1EY	TCGA-WT-AB44
TCGA-BH-A1F2	TCGA-E9-A1NE
TCGA-BH-A1F8	TCGA-AN-A041
TCGA-BH-A1FB	TCGA-BH-A1FE
TCGA-BH-A1FD	TCGA-E2-A15S
TCGA-BH-A1FJ	TCGA-EW-A6S9
TCGA-BH-A1FL	TCGA-E2-A106
TCGA-BH-A201	TCGA-BH-A1ES
TCGA-BH-A202	TCGA-E2-A14N
TCGA-BH-A203	TCGA-A2-A0D4
TCGA-BH-A209	TCGA-EW-A1J1
TCGA-BH-A5IZ	TCGA-E2-A15H
TCGA-BH-A5J0	TCGA-BH-A1EW
TCGA-BH-A8FY	TCGA-A7-A4SA
TCGA-BH-A8FZ	TCGA-OL-A5RW
TCGA-BH-AB28	TCGA-E2-A15E
TCGA-C8-A12V	TCGA-E2-A1L9
TCGA-C8-A12Z	TCGA-AC-A2BM
TCGA-C8-A132	TCGA-EW-A2FS
TCGA-C8-A273	TCGA-BH-A0DT
TCGA-C8-A3M7	TCGA-BH-A42V
TCGA-C8-A8HP	TCGA-BH-A0B7
TCGA-D8-A142	TCGA-BH-A0DQ
TCGA-D8-A143	TCGA-E9-A22H
TCGA-D8-A146	TCGA-E9-A227
TCGA-D8-A1JB	TCGA-BH-A0DZ
TCGA-D8-A1JF	TCGA-E2-A158
TCGA-D8-A1JG	TCGA-AO-A12D
TCGA-D8-A1JJ	TCGA-E2-A1L6
TCGA-D8-A1JK	TCGA-A1-A0SQ
TCGA-D8-A1JL	TCGA-A2-A3XT
TCGA-D8-A1JN	TCGA-E2-A1B1
TCGA-D8-A1JS	TCGA-E2-A1IG
TCGA-D8-A1JT	TCGA-AR-A2LO
TCGA-D8-A1JU	TCGA-AC-A6IV
TCGA-D8-A1X6	TCGA-A7-A5ZW

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-D8-A1X8	TCGA-B6-A401
TCGA-D8-A1XA	TCGA-E2-A570
TCGA-D8-A1XC	TCGA-A2-A0YE
TCGA-D8-A1XG	TCGA-BH-A0C7
TCGA-D8-A1XJ	TCGA-EW-A1IX
TCGA-D8-A1XL	TCGA-BH-A0HO
TCGA-D8-A1XM	TCGA-AR-A2LM
TCGA-D8-A1XQ	TCGA-D8-A1XO
TCGA-D8-A1XU	TCGA-EW-A1PE
TCGA-D8-A1XV	TCGA-A2-A3Y0
TCGA-D8-A1XY	TCGA-GM-A2DC
TCGA-D8-A1XZ	TCGA-BH-A0W3
TCGA-D8-A1Y0	TCGA-E9-A1R0
TCGA-D8-A1Y1	TCGA-A2-A0YC
TCGA-D8-A1Y2	TCGA-EW-A1PA
TCGA-D8-A27E	TCGA-AR-A0U3
TCGA-D8-A27G	TCGA-E2-A1LA
TCGA-D8-A27N	TCGA-E9-A1NC
TCGA-D8-A27P	TCGA-B6-A0WT
TCGA-D8-A27T	TCGA-E2-A1IE
TCGA-D8-A27V	TCGA-A1-A0SG
TCGA-D8-A27W	TCGA-3C-AALJ
TCGA-D8-A4Z1	TCGA-D8-A140
TCGA-D8-A73W	TCGA-A2-A0EY
TCGA-E2-A105	TCGA-D8-A1XB
TCGA-E2-A109	TCGA-AC-A23C
TCGA-E2-A10C	TCGA-BH-A0GZ
TCGA-E2-A14O	TCGA-BH-A1F5
TCGA-E2-A14P	TCGA-BH-A0C0
TCGA-E2-A14Q	TCGA-AR-A1AT
TCGA-E2-A14R	TCGA-GM-A5PV
TCGA-E2-A14U	TCGA-AN-A0FT
TCGA-E2-A14W	TCGA-E2-A1AZ
TCGA-E2-A14Z	TCGA-A2-A0CY
TCGA-E2-A152	TCGA-OL-A5RU
TCGA-E2-A154	TCGA-A2-A0ER
TCGA-E2-A156	TCGA-C8-A135
TCGA-E2-A15C	TCGA-GM-A5PX
TCGA-E2-A15F	TCGA-BH-A0B1
TCGA-E2-A15G	TCGA-AC-A3W7
TCGA-E2-A15J	TCGA-B6-A1KC
TCGA-E2-A15L	TCGA-A1-A0SO
TCGA-E2-A15M	TCGA-AO-A0J3
TCGA-E2-A15P	TCGA-AR-A0TR
TCGA-E2-A15T	TCGA-AR-A1AV
TCGA-E2-A1B4	TCGA-AC-A3OD
TCGA-E2-A1BC	TCGA-BH-A1EO
TCGA-E2-A1IF	TCGA-E2-A56Z
TCGA-E2-A1IH	TCGA-E9-A24A
TCGA-E2-A1II	TCGA-LL-A7T0
TCGA-E2-A1IJ	TCGA-S3-A6ZG
TCGA-E2-A1IN	TCGA-E2-A1IK
TCGA-E2-A1IU	TCGA-E9-A2JS
TCGA-E2-A1LB	TCGA-GM-A3NY
TCGA-E2-A1LE	TCGA-AC-A8OQ
TCGA-E2-A1LH	TCGA-E9-A1ND
TCGA-E2-A1LI	TCGA-AC-A5EH
TCGA-E2-A1LK	TCGA-E2-A2P6
TCGA-E2-A1LL	TCGA-BH-A0W5

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-E2-A572	TCGA-BH-A1FC
TCGA-E2-A576	TCGA-AO-A1KT
TCGA-E2-A9RU	TCGA-E2-A1IL
TCGA-E9-A1N3	TCGA-AC-A62Y
TCGA-E9-A1N5	TCGA-AC-A3QP
TCGA-E9-A1N9	TCGA-AC-A2FG
TCGA-E9-A1NA	TCGA-BH-A0E7
TCGA-E9-A1NF	TCGA-BH-A1F0
TCGA-E9-A1NG	TCGA-D8-A145
TCGA-E9-A1NI	TCGA-A2-A1G1
TCGA-E9-A1QZ	TCGA-WT-AB41
TCGA-E9-A1R3	TCGA-HN-A2OB
TCGA-E9-A1R4	TCGA-BH-A28Q
TCGA-E9-A1R5	TCGA-GM-A2DA
TCGA-E9-A1R6	TCGA-AR-A0TS
TCGA-E9-A1R7	TCGA-D8-A27K
TCGA-E9-A1RC	TCGA-AR-A24U
TCGA-E9-A1RD	TCGA-AR-A1AO
TCGA-E9-A1RE	TCGA-BH-A0BD
TCGA-E9-A1RF	TCGA-A7-A6VY
TCGA-E9-A1RH	TCGA-LL-A5YP
TCGA-E9-A22A	TCGA-LL-A7SZ
TCGA-E9-A22B	TCGA-A2-A1G0
TCGA-E9-A244	TCGA-S3-AA15
TCGA-E9-A247	TCGA-AN-A04C
TCGA-E9-A248	TCGA-BH-A0EI
TCGA-E9-A295	TCGA-E2-A1L8
TCGA-E9-A2JT	TCGA-E9-A1N6
TCGA-E9-A3X8	TCGA-BH-A0E1
TCGA-E9-A54X	TCGA-BH-A0B3
TCGA-E9-A54Y	TCGA-AO-A0JJ
TCGA-E9-A5FK	TCGA-BH-A0HX
TCGA-E9-A5FL	TCGA-LD-A7W6
TCGA-E9-A5UP	TCGA-D8-A1JI
TCGA-EW-A1J3	TCGA-A2-A3KC
TCGA-EW-A1J5	TCGA-D8-A1XR
TCGA-EW-A1J6	TCGA-BH-A0HL
TCGA-EW-A1OV	TCGA-BH-A18Q
TCGA-EW-A1OW	TCGA-BH-A0AW
TCGA-EW-A1OY	TCGA-E2-A15K
TCGA-EW-A1OZ	TCGA-E9-A228
TCGA-EW-A1P0	TCGA-E2-A155
TCGA-EW-A1P1	TCGA-AN-A04D
TCGA-EW-A1P7	TCGA-A2-A4S3
TCGA-EW-A1P8	TCGA-A2-A0T0
TCGA-EW-A1PB	TCGA-AO-A03N
TCGA-EW-A1PC	TCGA-OK-A5Q2
TCGA-EW-A1PG	TCGA-A7-A13H
TCGA-EW-A1PH	TCGA-EW-A1PD
TCGA-EW-A2FV	TCGA-A7-A13E
TCGA-EW-A3E8	TCGA-B6-A0X4
TCGA-EW-A3U0	TCGA-S3-AA0Z
TCGA-EW-A423	TCGA-EW-A1P6
TCGA-EW-A424	TCGA-E2-A10E
TCGA-EW-A6SB	TCGA-AC-A2FO
TCGA-EW-A6SC	TCGA-OL-A5S0
TCGA-EW-A6SD	TCGA-BH-A1EX
TCGA-GI-A2C8	TCGA-E2-A10B
TCGA-GI-A2C9	TCGA-A2-A0CW

Table SII. Continued.

Discovery cohort	Internal cohort
TCGA-GM-A2D9	TCGA-B6-A1KF
TCGA-GM-A2DB	TCGA-AO-A0JF
TCGA-GM-A2DF	TCGA-BH-A0EA
TCGA-GM-A2DH	TCGA-AC-A23G
TCGA-GM-A2DK	TCGA-BH-A0BV
TCGA-GM-A2DM	TCGA-EW-A1IW
TCGA-GM-A2DN	TCGA-BH-A204
TCGA-GM-A2DO	TCGA-BH-A0HK
TCGA-GM-A3NW	TCGA-AC-A3HN
TCGA-GM-A3XN	TCGA-BH-A18N
TCGA-GM-A4E0	TCGA-A2-A3XU
TCGA-HN-A2NL	TCGA-OL-A66O
TCGA-JL-A3YW	TCGA-D8-A1JD
TCGA-LD-A66U	TCGA-A2-A3XW
TCGA-LD-A74U	TCGA-E9-A245
TCGA-LD-A9QF	TCGA-BH-A208
TCGA-LL-A440	TCGA-A2-A3XY
TCGA-LL-A441	TCGA-A2-A25C
TCGA-LL-A442	TCGA-E2-A153
TCGA-LL-A50Y	TCGA-AC-A7VB
TCGA-LL-A6FQ	TCGA-BH-A0E9
TCGA-LL-A73Y	TCGA-C8-A8HQ
TCGA-LL-A740	TCGA-E2-A14V
TCGA-LL-A8F5	TCGA-BH-A0BM
TCGA-LL-A9Q3	TCGA-BH-A8G0
TCGA-LQ-A4E4	TCGA-D8-A1XK
TCGA-MS-A51U	TCGA-AR-A24W
TCGA-OL-A5RV	TCGA-AO-A03R
TCGA-OL-A5RY	TCGA-D8-A1JM
TCGA-OL-A66J	TCGA-B6-A0X5
TCGA-OL-A66N	TCGA-D8-A1XT
TCGA-OL-A97C	TCGA-A2-A0ST
TCGA-PE-A5DC	TCGA-D8-A1JE
TCGA-PE-A5DD	TCGA-BH-A0DI
TCGA-S3-A6ZF	TCGA-BH-A0DH
TCGA-S3-A6ZH	TCGA-LL-A5YL
TCGA-S3-AA10	TCGA-E2-A15R
TCGA-S3-AA11	TCGA-AR-A0TX
TCGA-S3-AA12	TCGA-D8-A1X9
TCGA-S3-AA17	TCGA-BH-A0GY
TCGA-V7-A7HQ	TCGA-E9-A1NH
TCGA-W8-A86G	TCGA-AO-A0J7
TCGA-XX-A899	TCGA-D8-A1J8
TCGA-XX-A89A	TCGA-EW-A1P5
TCGA-Z7-A8R5	

TCGA, The Cancer Genome Atlas.