Figure S1 Screening process of specific gene lists in ovarian tumors. This list of specific genes in ovarian tumors was screened using genetic data from GSE38666 (containing normal ovary and ovarian cancer samples) and HPA (normal ovary). A1 is a list of up-regulated differential genes in ovarian tumors; B1 is the list of up-regulated genes in normal samples; C1 is the list of insignificant genes; A2 is the gene set with low expression level in HPA; B2 is the gene set with medium expression level in HPA; C2 is the gene set with high expression level in HPA; H is the list of genes that are highly expressed in the tumor gene profile and lowly expressed in normal tissues. S+N is a list of moderately expressed and highly expressed genes in normal ovaries obtained from HPA. Here we only focus on the highly expressed genes in ovarian tumors for subsequent analysis. HPA, The Human Protein Atlas; DEG, differentially expressed gene; OV, ovarian cancer samples.
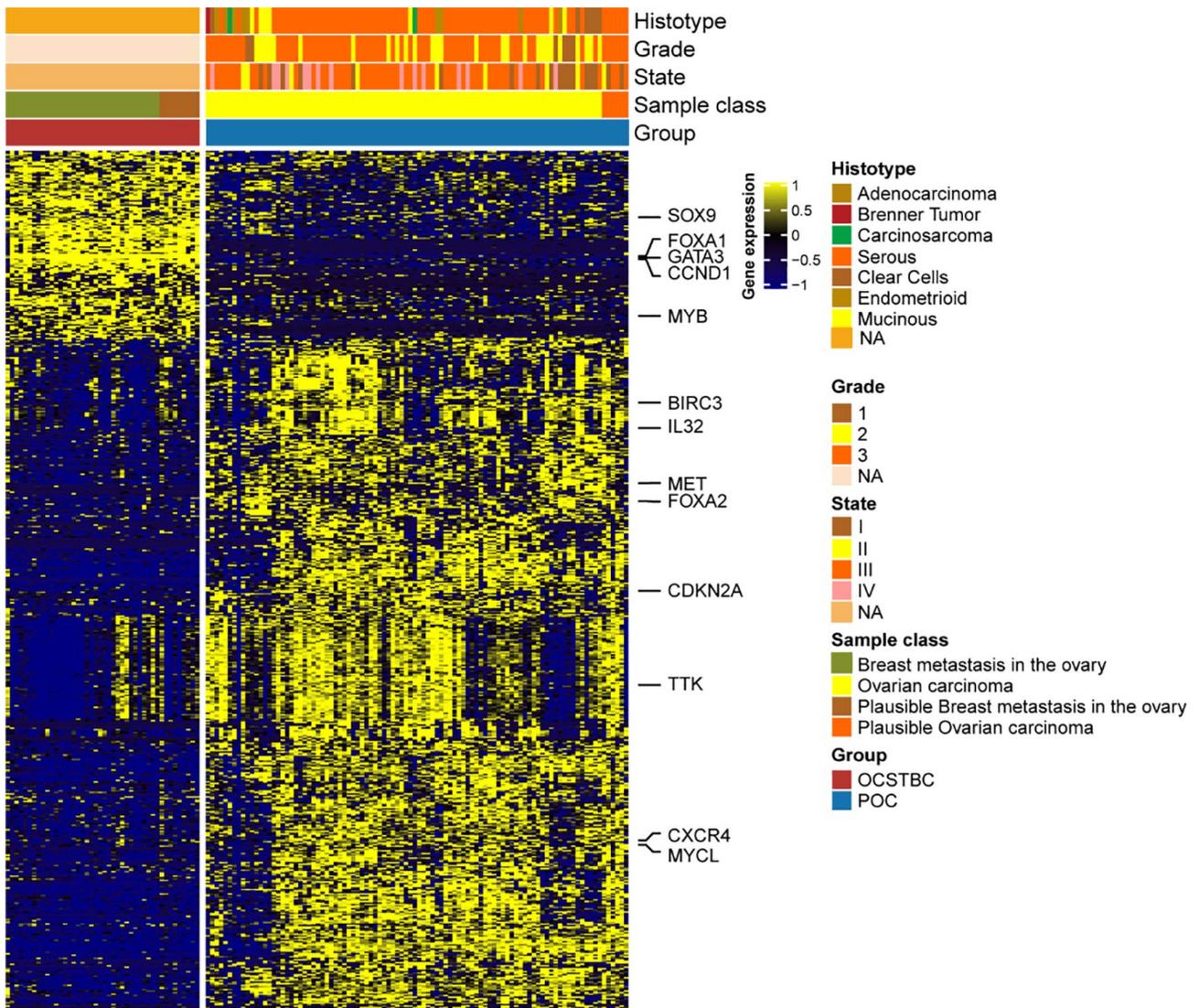
Figure S2 Differential gene heatmaps marking clinical features. The heatmap shows that there are significant differences in the expression of 575 differential genes between POC and OCSTBC. Blue to yellow means gene expression goes from low to high. The blue-red band at the top shows the classification of the sample, the red band is the OCSTBC sample, and the blue band is the POC sample (x: sample, y: gene). POC, primary ovarian cancer; OCSTBC, ovarian cancer secondary to breast cancer.
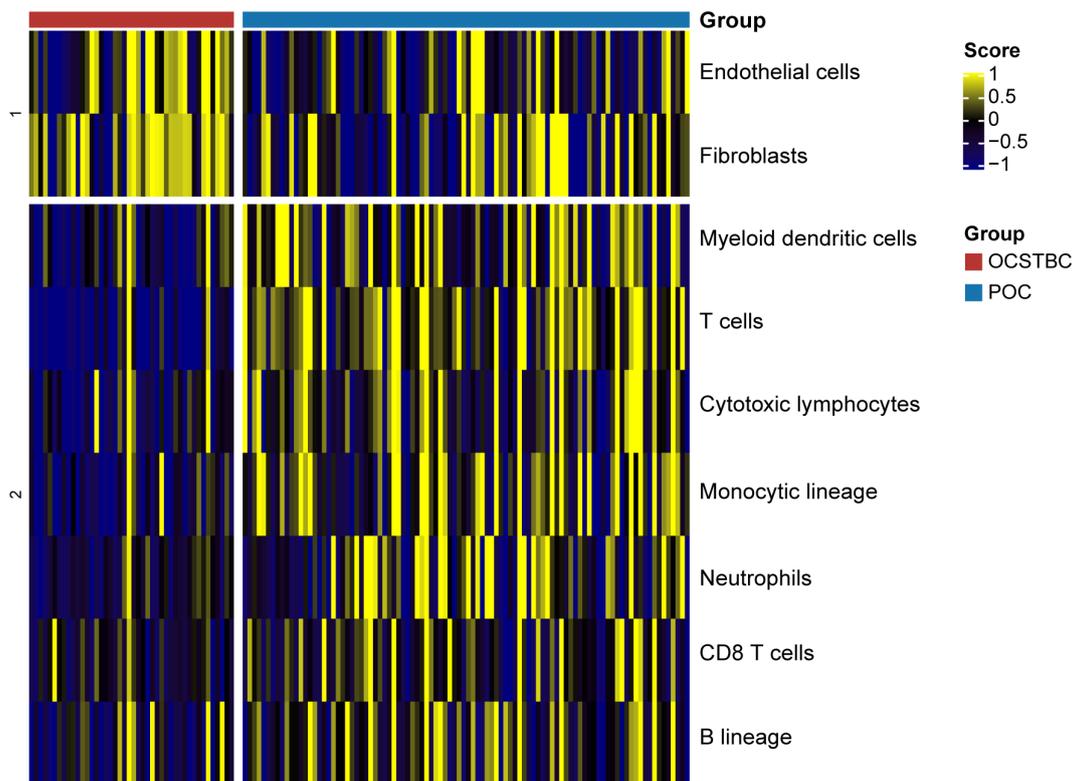
Figure S3 The degree of infiltration of immune cells in the sample. After the immune infiltration analysis by MCP-counter, the infiltration fraction of 10 immune cells was obtained. However, only 9 immune cells showed differences in infiltration between the two groups (P<0.05, *t*-test). Except for endothelial cells and fibroblasts, other cells were relatively infiltrated in OCSTBC. MCP, Microenvironment Cell Populations; POC, primary ovarian cancer; OCSTBC, ovarian cancer secondary to breast cancer.
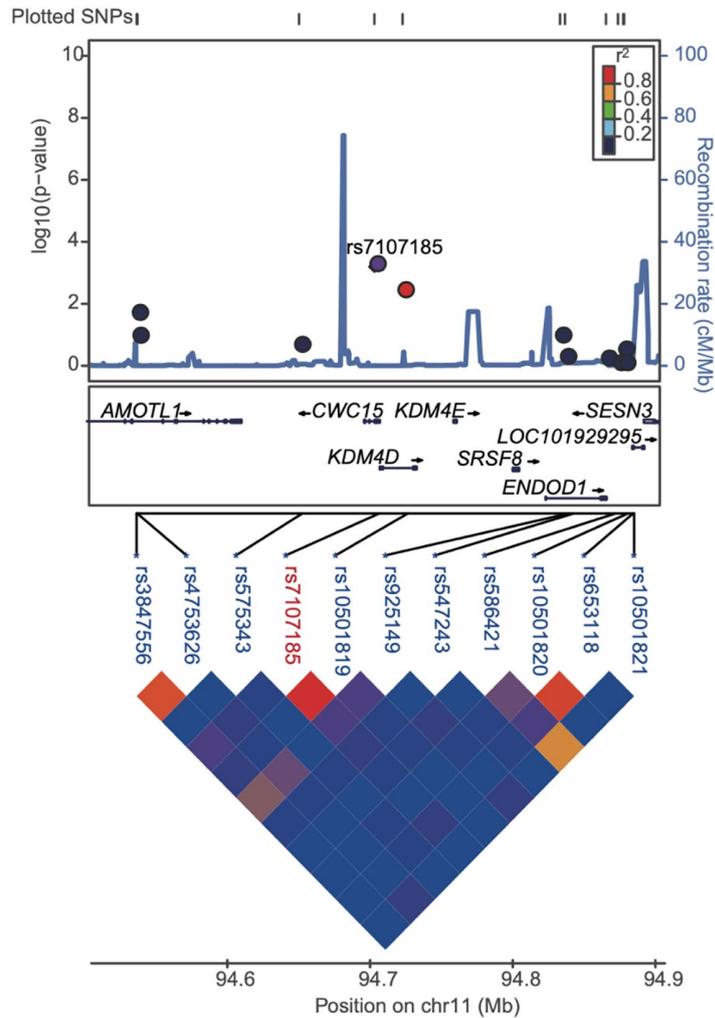
Figure S4 Regional association map of the 200 kb ranges around the 30 SNPs associated with the phenotype (POC/OCSTBC). Dots indicate the chromosomal location of the SNP site and its significance [$-\log_{10}$(P value)]. The color of the dots indicates the intensity of the LD. The blue lines represent the recombination rate. POC, primary ovarian cancer; OCSTBC, ovarian cancer secondary to breast cancer; SNP, single nucleotide polymorphism; LD, linkage disequilibrium.
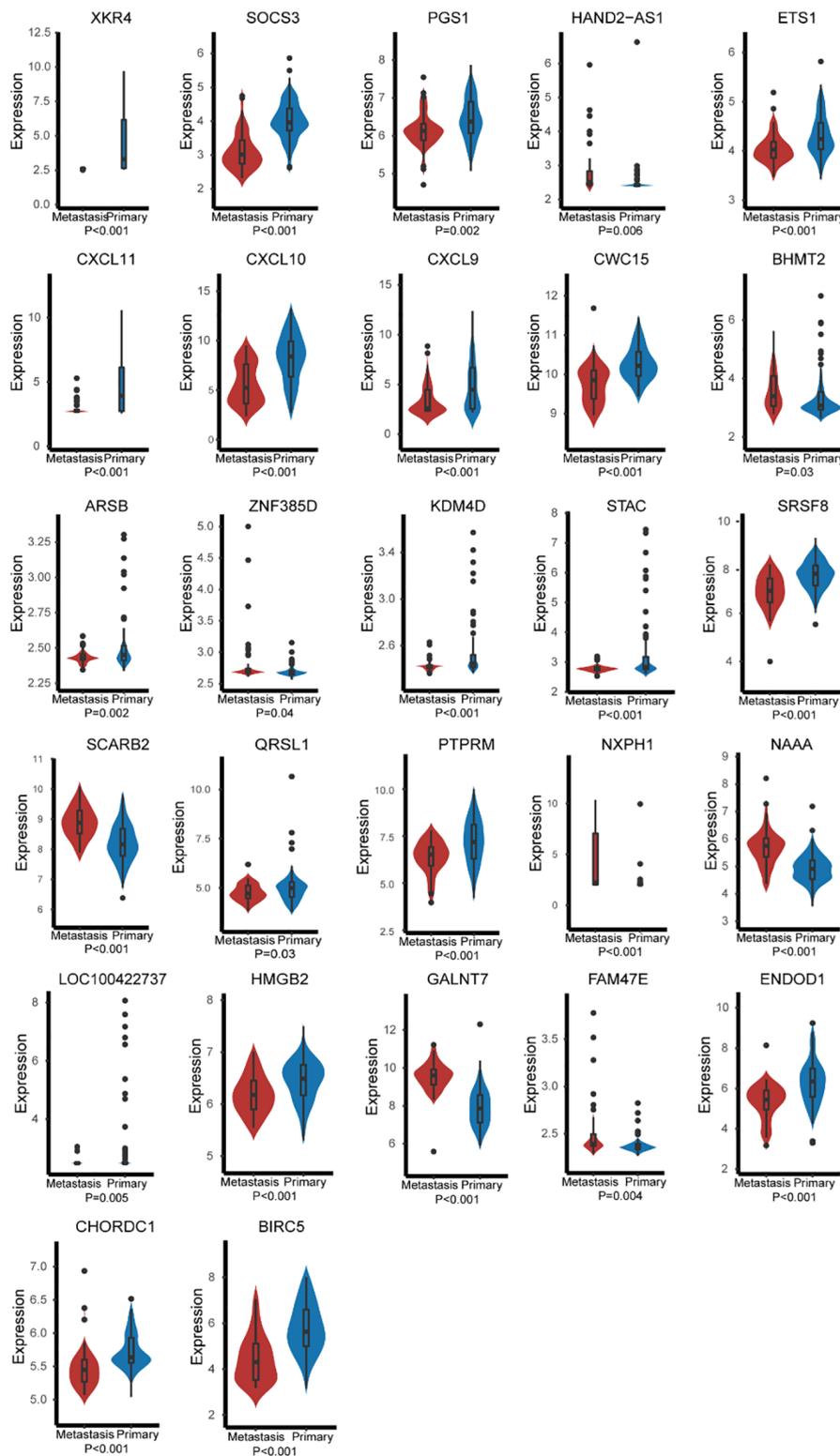
Figure S5 Genome candidate genes were differentially expressed in the transcriptome. Candidate genes were within 200 kb upstream and downstream of 30 SNPs; 27 out of 71 candidate genes were different in POC and OCSTBC (P<0.05, *t*-test). POC, primary ovarian cancer; OCSTBC, ovarian cancer secondary to breast cancer; SNP, single nucleotide polymorphism.

Table S1 Clinical characteristics of 140 ovarian cancer patients used in transcriptome analysis

Factors	POC	OCSTBC
Number of patients	96	44
Histotype		
Serous	71 (74.0%)	NA
Endometrioid	6 (6.3%)	NA
Mucinous	7 (7.3%)	NA
Clear cells	6 (6.3%)	NA
Adenocarcinoma	3 (3.1%)	NA
Brenner tumor	1 (1.0%)	NA
Carcinosarcoma	2 (2.0%)	NA
Unknown	NA	44 (100%)
Grade		
1	6 (6.3%)	NA
2	27 (28.1%)	NA
3	63 (65.6%)	NA
Unknown	NA	44 (100%)
Stage		
I	18 (18.8%)	NA
II	9 (9.4%)	NA
III	52 (54.2%)	NA
IV	15 (15.7%)	NA
Unknown	2 (2.1%)	44 (100%)
Sex		
Female	96 (100%)	44 (100%)
Male	0 (0%)	0 (0%)

OCSTBC, ovarian cancer secondary to breast cancer; POC, primary ovarian cancer.

Table S2 575 DEGs between POC and OCSTBC

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
AZGP1	8.144250095	6.70988	22.20070882	1.53E-47	3.15E-44	97.48675391
GATA3	7.979532042	5.740301643	55.49666545	1.02E-96	6.32E-93	205.136129
ANKRD30A	7.389815691	4.877069857	22.10837996	2.40E-47	3.72E-44	97.04256979
FOXA1	7.130377486	4.8914475	38.00058239	2.72E-75	8.43E-72	159.3826343
FBP1	4.615818636	5.856508357	18.10981324	2.15E-38	2.67E-35	76.74139412
C1orf64	4.004098911	3.690857857	16.45161344	1.98E-34	1.37E-31	67.72413256
DUSP4	3.849054791	6.005393143	12.10599451	1.75E-23	2.57E-21	42.78518971
TFAP2B	3.814129754	3.629540452	11.92941401	4.98E-23	7.01E-21	41.74804567
DEGS2	3.681907973	4.304381286	15.11013122	4.01E-31	2.07E-28	60.19746016
CYP4Z2P	3.519502197	3.570383429	13.73824512	1.15E-27	3.55E-25	52.32012359
SERHL2	3.501729848	4.6080295	12.81246021	2.66E-25	5.32E-23	46.92689267
HOTAIR	3.440151023	3.835746571	14.46873115	1.62E-29	5.58E-27	56.53456635
CTD-2311B13.7 /// P775P	3.409015559	3.689742286	12.8965051	1.62E-25	3.58E-23	47.41840331
IRX3	3.064616705	8.286274	8.71956616	7.61E-15	3.16E-13	23.11355709
PP14571	2.84559054	4.096253143	11.19312668	3.94E-21	4.27E-19	37.42248305
CA12	2.784291802	5.836191173	10.61576969	1.20E-19	1.01E-17	34.03824296
LRP2	2.775327079	4.870781643	8.340611039	6.53E-14	2.41E-12	20.99356138
SLITRK6	2.701070565	3.93514369	7.132192289	4.96E-11	1.03E-09	14.46766609
PKIB	2.651217509	4.508487393	10.53126044	1.98E-19	1.57E-17	33.54411164
CREB3L4	2.627926439	7.536968071	16.60328252	8.50E-35	7.51E-32	68.56260005
SERPINA3	2.537058561	7.439777929	5.417156324	2.59E-07	2.64E-06	6.10203283
KIAA1244	2.496975462	4.905387232	14.63845347	6.08E-30	2.51E-27	57.50746945
CAPN8	2.36265767	4.769203929	6.584604279	8.67E-10	1.47E-08	11.66181752
GATA3-AS1	2.361440857	2.909634679	12.70755596	4.95E-25	9.29E-23	46.31296405
HOXC13	2.352579972	3.390143214	13.30229042	1.48E-26	3.99E-24	49.78659645
TFAP2A	2.34422566	6.071333476	9.179840707	5.41E-16	2.61E-14	25.72389854
CXCL13	2.335534167	4.939973357	4.346000385	2.66E-05	0.000174793	1.639833616
SCGB1D2	2.248696402	8.096186071	3.406231915	0.000861561	0.003901921	-1.648076181
VAV3	2.233150306	6.47627769	6.143663362	8.01E-09	1.13E-07	9.488214749
SHISA2	2.227430142	5.881644786	6.005199753	1.58E-08	2.10E-07	8.82318264
BC032415	2.212233314	4.321832286	12.86162525	1.99E-25	4.25E-23	47.21445772
RAB26	2.192286856	4.806701107	10.00688315	4.35E-18	2.84E-16	30.48866138
IRX2	2.176448414	3.212543571	15.43921482	6.09E-32	3.43E-29	62.06146306
RP11-353N14.2	2.131219176	3.790408929	9.854703024	1.06E-17	6.58E-16	29.60616381
GALNT6	2.100976974	7.354251893	6.468018471	1.57E-09	2.58E-08	11.07919418

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
SPDEF	2.002679392	5.490866586	14.59715523	7.72E-30	2.99E-27	57.27096852
STC2	1.993523414	5.029626607	6.585326719	8.64E-10	1.47E-08	11.66544486
EFCAB4A	1.96003233	6.014095786	7.584415316	4.33E-12	1.11E-10	16.86188259
TARP /// TRGC2 /// TRGV9	1.934914242	3.440613196	6.569246262	9.38E-10	1.58E-08	11.5847549
RP11-757F18.5	1.916567443	3.553627893	9.686178335	2.85E-17	1.58E-15	28.63159588
BAI2	1.796811705	4.6032235	8.670588916	1.01E-14	3.97E-13	22.83796622
MYB	1.782349815	4.851449429	11.63948408	2.78E-22	3.59E-20	40.04450871
AC018816.3	1.763893456	3.017430786	7.626702983	3.44E-12	8.99E-11	17.08894659
PREX1	1.762396482	5.622169214	8.670733581	1.01E-14	3.97E-13	22.83877957
ABCA3	1.761248201	4.484557857	9.780727542	1.64E-17	9.58E-16	29.17799937
FAM110A	1.729230616	4.8274955	9.755255233	1.90E-17	1.09E-15	29.03069917
CISH	1.712241989	5.794325071	8.923314317	2.37E-15	1.04E-13	24.26469497
FXYD3	1.705347079	8.083268464	6.063178661	1.19E-08	1.62E-07	9.100585012
CCND1	1.645138802	7.583263571	5.076672862	1.21E-06	1.06E-05	4.609665472
TTC36	1.631436364	2.826269643	8.747466873	6.49E-15	2.75E-13	23.27075157
NBPF4	1.630750786	3.142344071	7.476160154	7.81E-12	1.90E-10	16.28298756
DCD	1.616819991	2.854342071	4.356320513	2.55E-05	0.000168778	1.679405716
S100A14	1.615897973	8.224486357	5.124751316	9.78E-07	8.74E-06	4.816443135
PSCA	1.609185	3.760568857	3.5853055	0.000465168	0.002280869	-1.071806219
RTN4RL1	1.599658513	3.004684714	11.16315633	4.70E-21	5.02E-19	37.24654053
ST8SIA6-AS1	1.585590682	3.374161	5.600360402	1.10E-07	1.22E-06	6.931076554
BSPRY	1.576605028	6.79784975	7.460242504	8.51E-12	2.03E-10	16.19816229
AX747630	1.552376723	3.702396286	5.203230723	6.88E-07	6.39E-06	5.156807933
ATP6V0E2	1.533748229	7.301421929	7.726618637	1.99E-12	5.55E-11	17.62746183
COL10A1	1.531760696	6.071233786	3.738316633	0.000269875	0.00140285	-0.560057366
ALDH3B2	1.529937491	5.285966143	4.780100802	4.41E-06	3.35E-05	3.364254871
MS4A7	1.529176926	6.059009643	6.305221298	3.58E-09	5.47E-08	10.2750164
TMEM63C	1.519475275	3.145191143	10.97247916	1.46E-20	1.43E-18	36.12771744
TTC39A	1.518223314	3.742424024	12.57142798	1.11E-24	1.85E-22	45.51565516
SIX1	1.511937592	4.29121681	6.58724768	8.55E-10	1.46E-08	11.67509091
BC038731 /// CTD-2284J15.1	1.501882973	3.220065571	10.1851266	1.53E-18	1.06E-16	31.52493372
RGL2	1.477616184	8.589325429	12.60687106	8.98E-25	1.54E-22	45.72331381
KIF12	1.465462188	4.598339143	7.491518132	7.18E-12	1.77E-10	16.36490264
ASTN2	1.457555606	3.517882238	13.61969254	2.30E-27	6.51E-25	51.632388

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
METRN	1.456906701	5.164890762	9.876115477	9.38E-18	5.86E-16	29.73020075
CHAD	1.453006723	3.028763214	7.202154313	3.41E-11	7.29E-10	14.8338064
KMO	1.433149757	3.221107905	6.213433428	5.66E-09	8.34E-08	9.82659407
SYCP2	1.430113234	3.506465357	11.200782	3.76E-21	4.16E-19	37.46742729
RP11-532F12.5	1.415760455	7.205265786	7.15026507	4.50E-11	9.48E-10	14.5620919
CRIP1	1.405327623	9.4936045	3.911148545	0.000143124	0.000799711	0.03887395
LDLRAD3	1.401296117	7.026187143	7.829604181	1.13E-12	3.28E-11	18.18540501
CHKB-CPT1B /// CPT1B	1.385970426	5.617861643	6.957918387	1.25E-10	2.45E-09	13.56287033
CRABP2	1.365482036	9.300560143	3.372940754	0.000963734	0.004283183	-1.75246749
CERS4	1.360504432	3.957933357	6.363293866	2.67E-09	4.17E-08	10.56060028
PPAP2C	1.356355407	5.958281357	4.106479379	6.82E-05	0.000409348	0.741707692
SOWAHA	1.354898693	3.743680929	5.016539339	1.58E-06	1.34E-05	4.352925104
CLMN	1.351455914	5.334395839	7.576598556	4.52E-12	1.15E-10	16.81996701
HIST1H2AD /// HIST1H3A /// HIST1H3B /// HIST1H3C /// HIST1H3D /// HIST1H3E /// HIST1H3F /// HIST1H3G /// HIST1H3H /// HIST1H3I /// HIST1H3J	1.344549574	4.102821786	4.924499705	2.36E-06	1.90E-05	3.964075124
MS4A14	1.340502926	3.689259357	6.24302827	4.88E-09	7.30E-08	9.970776456
C11orf52 /// HSPB2 /// HSPB2-C11orf52	1.3395166	5.070402286	6.183361987	6.57E-09	9.53E-08	9.680484789
TRIM3	1.325523535	3.478557304	13.61852907	2.31E-27	6.51E-25	51.62563388
SOX9	1.307752036	8.003612679	3.900425176	0.000148956	0.000827071	0.001079147
CACNA1D	1.295226901	2.966328161	8.455703694	3.41E-14	1.28E-12	21.63433242
SLC27A2	1.292797306	4.446392464	4.617090638	8.77E-06	6.41E-05	2.702566572
FAM46B	1.284589347	3.517534643	5.21066041	6.65E-07	6.20E-06	5.189211027
FGD3	1.262348561	4.035223536	6.958424189	1.24E-10	2.45E-09	13.565481
SMIM22	1.260658636	6.4171695	4.977698871	1.87E-06	1.56E-05	4.188220374
ABCA12	1.235277955	3.168087714	5.334459068	3.79E-07	3.77E-06	5.733660028
WIF1	1.234020748	3.725049571	3.23899411	0.001500632	0.006345909	-2.163651429
SLC26A3	1.218193542	2.907087286	5.813086294	4.02E-08	4.90E-07	7.915307346
POTEM	1.210341288	6.340179643	4.188220548	4.97E-05	0.000308766	1.043789612
EME2	1.198235755	4.368167929	13.2381332	2.16E-26	5.58E-24	49.41275955
DNM3OS	1.197351676	4.377460214	5.642726007	9.05E-08	1.02E-06	7.125274613
C6orf141	1.192558305	3.203740393	5.214861631	6.53E-07	6.13E-06	5.207547546

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
PIK3R3	1.179198428	6.721617929	5.63380433	9.44E-08	1.06E-06	7.084302672
HIST2H2AA3 /// HIST2H2AA4	1.178295933	9.695229964	3.974791207	0.000112742	0.000648082	0.264888261
GAMT	1.172210063	4.457217071	10.21668301	1.27E-18	8.92E-17	31.70866679
PAQR6	1.16669643	3.9016855	6.175938624	6.82E-09	9.83E-08	9.644478252
HPX	1.159187472	2.93095325	8.706329291	8.21E-15	3.36E-13	23.03903006
RND1	1.147178277	2.714525286	7.139272286	4.77E-11	1.00E-09	14.50464424
KCNS3	1.130386364	5.250291786	4.106011722	6.84E-05	0.000409656	0.739992791
TPSAB1 /// TPSB2	1.123543793	4.001392357	4.802897236	4.00E-06	3.08E-05	3.458105708
MSX2	1.118887541	3.303314571	7.036838063	8.22E-11	1.65E-09	13.97130132
ENG	1.115680398	5.394441786	7.750431857	1.75E-12	4.96E-11	17.75621812
DACH1	1.096337424	5.90195069	3.004224478	0.00315924	0.012247248	-2.849561241
PGLYRP2	1.090583646	2.647341214	5.212637242	6.60E-07	6.17E-06	5.197837815
MXRA8	1.080837879	7.463036071	4.114923787	6.60E-05	0.000398895	0.772699695
RP11-174G6.5	1.078797794	5.242172714	4.709386235	5.95E-06	4.44E-05	3.075171137
HOXB-AS1	1.076953868	3.537645643	7.369233853	1.39E-11	3.19E-10	15.7146619
GNMT	1.063981278	2.772869429	6.104427961	9.72E-09	1.35E-07	9.298882756
ALOX15B	1.063620185	3.450922036	4.928793296	2.32E-06	1.87E-05	3.982102922
ST6GALNAC2	1.061568438	6.419719857	3.128288723	0.002142564	0.008664018	-2.49267058
FAM173A	1.057738267	5.638719214	7.839506903	1.07E-12	3.14E-11	18.23920514
DPP7	1.05405672	5.144848476	11.27282858	2.45E-21	2.89E-19	37.89047126
DLX2	1.039436089	2.959944393	7.570949051	4.66E-12	1.17E-10	16.7896839
PLEKHS1	1.03615901	4.099894714	3.542047463	0.000540969	0.002602285	-1.213272745
FBXL16	1.032563191	4.526241214	6.416514132	2.04E-09	3.25E-08	10.82357471
HES4	1.026503097	4.342530571	4.924232475	2.37E-06	1.90E-05	3.962953454
LMOD1	1.026306051	3.651206143	5.027231883	1.51E-06	1.29E-05	4.398422829
ECEL1	1.012884081	3.098093643	4.115144264	6.60E-05	0.000398895	0.773509537
TMC5	1.012556837	5.38625069	3.272836538	0.001343438	0.005771358	-2.061107656
SRGN	-1.002214965	7.288065619	-4.957021396	2.05E-06	1.69E-05	4.100899782
ACTR3C	-1.005044138	3.698464714	-6.037029138	1.35E-08	1.83E-07	8.975279564
TRIM59	-1.006218239	5.772319357	-6.062334831	1.20E-08	1.63E-07	9.096536575
C12orf5	-1.013152898	6.201528643	-4.983090712	1.83E-06	1.54E-05	4.211031592
MIR155 /// MIR155HG	-1.01557697	3.8684245	-5.267635395	5.14E-07	4.94E-06	5.438723369
LINC01315	-1.020987244	4.453837357	-5.621036753	1.00E-07	1.11E-06	7.025739418
MIR7110 /// PDIA5	-1.021946932	8.942075429	-6.595063064	8.21E-10	1.41E-08	11.71435073

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log₂FC	AveExpr	t	P value	adj.P.Val	B
LINC00623 /// LINC00869	-1.022460284	8.238067214	-7.3437424	1.60E-11	3.61E-10	15.57969386
APBA2	-1.022692694	3.542290786	-7.043221031	7.94E-11	1.61E-09	14.00443018
CENPK	-1.023534034	5.6518835	-4.725418496	5.56E-06	4.16E-05	3.140439516
HMGB3	-1.024837277	6.224175107	-4.92923593	2.32E-06	1.87E-05	3.983962066
ST3GAL6	-1.029377183	3.574724946	-9.226071474	4.14E-16	2.02E-14	25.98795116
VSIG4	-1.030862462	6.455035071	-4.216487397	4.45E-05	0.000280048	1.14932644
HLA-DRB1 /// HLA-DRB4 /// LOC100996809	-1.03556429	11.2279785	-3.639096725	0.000384849	0.001932359	-0.893908747
POU5F1 /// POU5F1B /// POU5F1P3 /// POU5F1P4	-1.035659688	6.405126643	-6.11809563	9.08E-09	1.27E-07	9.364757821
RACGAP1	-1.038016345	8.7443915	-5.850683949	3.35E-08	4.15E-07	8.091592608
LGALS9	-1.03864464	6.186922786	-4.954730964	2.07E-06	1.70E-05	4.09124292
TNNC1	-1.042473286	3.170860643	-3.802582888	0.00021368	0.001137486	-0.339907676
RDH10	-1.043812476	4.871089911	-4.408496181	2.07E-05	0.000139593	1.880557517
CD163	-1.045073734	5.918505095	-5.523878459	1.58E-07	1.67E-06	6.582836064
CST1	-1.047219858	4.024429071	-2.622189478	0.009710885	0.032184201	-3.867907527
CTHRC1	-1.047332746	9.260275571	-3.006291298	0.003139163	0.01217704	-2.843719177
PRSS1 /// PRSS2	-1.050434962	3.293066214	-3.909646057	0.000143928	0.000802753	0.033573384
CAPN5	-1.050546671	4.881171679	-4.936466971	2.24E-06	1.82E-05	4.014350318
HLA-DQB1 /// HLA-DRB1 /// HLA-DRB4 /// HLA-DRB5 /// LOC100996809 /// LOC101060835	-1.051382093	11.13566886	-3.701019368	0.000308635	0.001579716	-0.686417661
MND1	-1.052187254	4.267177786	-5.290028028	4.65E-07	4.50E-06	5.537282511
OLFML2B	-1.052713011	5.584759214	-3.79135592	0.000222621	0.001178997	-0.378586404
ADA	-1.054789858	3.772848679	-8.593886972	1.56E-14	6.02E-13	22.40728817
COL13A1	-1.055771853	4.343496024	-4.764734606	4.71E-06	3.56E-05	3.301174035
SLC2A1	-1.056055507	5.262604393	-7.668068107	2.74E-12	7.35E-11	17.31155164
ISG15	-1.056511165	9.401517071	-3.272500087	0.001344922	0.005771358	-2.062131606
AIFM1	-1.058051297	8.198804071	-7.136477354	4.84E-11	1.01E-09	14.49004456
HLA-DRA	-1.061118594	10.79720043	-3.862689636	0.000171328	0.000935352	-0.131258306
SYT11	-1.062128033	4.142645381	-5.564764532	1.31E-07	1.41E-06	6.768622762
COL18A1	-1.063131364	8.2877805	-5.876918967	2.95E-08	3.69E-07	8.215006782
CD14	-1.065916345	7.769960429	-4.559393713	1.11E-05	8.04E-05	2.472384452
FCHO1	-1.066052254	3.283102714	-5.990608807	1.70E-08	2.24E-07	8.753616954
DUSP6	-1.069302955	7.868473357	-4.787809026	4.26E-06	3.26E-05	3.395953206

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
BD495725	-1.070638475	4.837881643	-7.579034898	4.46E-12	1.14E-10	16.83302943
IGKV1-37 /// IGKV1-37 /// IGKV1D-37 /// IGKV1D-37	-1.072469763	3.442916929	-2.808575239	0.005693247	0.020480471	-3.386490283
HAGLROS	-1.07312982	3.654198857	-5.057558734	1.32E-06	1.15E-05	4.527829489
PSRC1	-1.073288267	5.930993643	-4.485034975	1.51E-05	0.000105557	2.178890048
LINC00176	-1.07546928	3.530135786	-3.79519593	0.000219524	0.001165586	-0.365367384
WARS	-1.077273916	8.14144575	-6.168601774	7.07E-09	1.02E-07	9.608915426
OSMR	-1.078599296	6.447411476	-5.084616981	1.17E-06	1.03E-05	4.643739972
BIRC3	-1.082604962	4.507250643	-5.299133595	4.46E-07	4.33E-06	5.577439097
PAX6	-1.083936241	3.702341929	-4.002234094	0.000101634	0.000591371	0.363241126
FOXA2	-1.085488507	3.203594976	-5.466808806	2.06E-07	2.13E-06	6.324975621
GOLGA2P7 /// LOC101929479 /// LOC642423 /// LOC727751 /// LOC80154	-1.086845294	5.050315571	-7.542240565	5.45E-12	1.36E-10	16.63594158
APOA1	-1.08796214	5.48031175	-3.016189152	0.003044634	0.011869855	-2.815693121
FUOM	-1.087986288	3.878757286	-7.24777445	2.67E-11	5.87E-10	15.07342668
GRB7	-1.087988655	7.1480805	-4.266026923	3.66E-05	0.000235216	1.335605626
NCAPH	-1.088803722	3.220937357	-5.49235376	1.83E-07	1.91E-06	6.440184392
FAM3B	-1.089318674	4.935697286	-2.583703425	0.010806771	0.035324563	-3.963595537
SLC2A3	-1.089525855	5.389952762	-5.301751238	4.40E-07	4.30E-06	5.588991658
CENPE	-1.090182386	5.2336175	-4.44075942	1.81E-05	0.000123542	2.005843658
GYLTL1B	-1.090664593	5.181175429	-5.2180784	6.44E-07	6.05E-06	5.221594058
HLA-DQB1 /// HLA-DRB1 /// HLA-DRB3 /// HLA-DRB4 /// LOC100996809 /// LOC101060835	-1.090704839	10.76673007	-3.757403688	0.000251869	0.001320341	-0.494991819
MXRA5	-1.094133759	8.412944286	-3.544179998	0.000536975	0.002589105	-1.206332226
LINC00888	-1.102020895	4.873790107	-5.576973142	1.23E-07	1.34E-06	6.824267167
RIPK4	-1.104991449	4.955903536	-7.863952296	9.34E-13	2.75E-11	18.37212461
KPNA2	-1.10857974	10.32653646	-6.289105667	3.88E-09	5.87E-08	10.19602027
PDIA4	-1.109788007	8.511494536	-9.154160208	6.27E-16	3.01E-14	25.57735788
GUCY1B3	-1.110263546	6.271391643	-4.140362823	5.98E-05	0.000364192	0.8663644
TOX2	-1.111179252	3.270646714	-4.881229203	2.85E-06	2.26E-05	3.783008855
PPAPDC1A	-1.114043684	3.909270214	-3.934869502	0.000130986	0.000743294	0.12277393
LOC101926907	-1.11491571	4.227301357	-5.822204512	3.85E-08	4.70E-07	7.957997083
DSC2	-1.115501188	5.637541464	-4.959319691	2.03E-06	1.67E-05	4.110592923

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
CXCL3	-1.118306051	3.166157071	-4.81064618	3.87E-06	2.99E-05	3.490079986
MAD2L1	-1.118962071	5.937025095	-6.211640489	5.71E-09	8.40E-08	9.817871454
IGK /// IGKC	-1.121800226	5.728333201	-2.964382284	0.003570139	0.013626837	-2.9614889
CCL5	-1.123416619	4.86510881	-3.978444642	0.000111199	0.000641596	0.277950849
MCM10	-1.124546995	4.251538167	-5.53105389	1.53E-07	1.62E-06	6.615378236
CDK1	-1.126166013	6.357424089	-5.984474377	1.75E-08	2.29E-07	8.724399294
CXCL17	-1.127631752	5.986740929	-2.701140644	0.007770383	0.02663701	-3.667611482
CPAMD8	-1.128156752	5.137515929	-4.917337181	2.44E-06	1.95E-05	3.934025862
LAPTM5	-1.129832599	8.559371786	-4.787676161	4.27E-06	3.26E-05	3.395406521
ASF1B	-1.131569384	6.012571929	-5.108775856	1.05E-06	9.33E-06	4.747587738
CTSS	-1.132169025	6.713945762	-5.722619226	6.19E-08	7.32E-07	7.493971357
PKM	-1.135124806	8.802638	-8.00914232	4.18E-13	1.32E-11	19.16476716
FADS3	-1.13518401	5.929776893	-7.910076608	7.24E-13	2.19E-11	18.62334731
PDE9A	-1.13594027	3.780976607	-8.691891909	8.91E-15	3.61E-13	22.95778109
E2F3	-1.13762901	6.669194714	-7.189067288	3.66E-11	7.76E-10	14.76519281
GLIPR2	-1.140093272	5.827600857	-5.632070363	9.52E-08	1.07E-06	7.076344302
LOC80154	-1.141487732	5.785676036	-7.204507752	3.37E-11	7.24E-10	14.84615117
CCL28	-1.146714817	5.360562595	-4.022004916	9.43E-05	0.000552257	0.434430097
F2RL1	-1.14699572	6.506432714	-5.035478073	1.45E-06	1.25E-05	4.433556772
OIP5	-1.147294981	4.768729286	-5.634788044	9.39E-08	1.06E-06	7.088818295
AURKA	-1.148751316	5.116768143	-8.122778288	2.22E-13	7.34E-12	19.78881743
SFTA2	-1.148810767	3.2704155	-3.148206903	0.002010925	0.008185167	-2.434203103
ICAM1	-1.149198447	4.703432095	-6.07370186	1.13E-08	1.55E-07	9.151099455
DNMT3B	-1.150532008	5.338102143	-4.901482857	2.61E-06	2.08E-05	3.867620748
SPC25	-1.154026155	4.776590857	-5.492877268	1.83E-07	1.91E-06	6.442549038
ARPC1B	-1.156033996	9.576391071	-7.524795798	6.00E-12	1.49E-10	16.54263812
RP11-157P1.4	-1.158997093	6.580212	-5.666922442	8.07E-08	9.29E-07	7.236598016
TNFRSF12A	-1.160280189	7.476183429	-5.828123552	3.74E-08	4.58E-07	7.985730563
RUNX3	-1.161867869	3.589046214	-6.095932887	1.01E-08	1.40E-07	9.257981064
DPEP3	-1.162395701	2.987685429	-3.468360443	0.000697486	0.003251608	-1.450947169
ATP6V1B1	-1.162555289	4.791994179	-5.114584557	1.02E-06	9.13E-06	4.772606721
LOC728554 /// THOC3	-1.164158201	8.061404	-7.387103414	1.26E-11	2.93E-10	15.80939579
IL2RG	-1.168460994	4.939434714	-4.298140621	3.22E-05	0.00020939	1.45725134
BOP1 /// MIR7112	-1.171022235	4.798826107	-7.354530137	1.51E-11	3.44E-10	15.63678617
ANKRD65	-1.17306151	4.019816286	-5.925977779	2.33E-08	2.97E-07	8.446673648

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
PPARGC1B	-1.174482192	3.732373536	-8.273187801	9.54E-14	3.43E-12	20.6195209
GAS2L3	-1.176513674	6.220031893	-5.507159081	1.71E-07	1.79E-06	6.507114582
RPL39L	-1.179357879	4.8260305	-5.161452439	8.30E-07	7.58E-06	4.975180361
ARHGAP26	-1.181315204	4.134244143	-8.338512621	6.61E-14	2.42E-12	20.981905
STIL	-1.183007604	6.420222714	-6.814664288	2.64E-10	4.96E-09	12.82719106
TES	-1.183219596	6.374465429	-9.375981184	1.74E-16	8.88E-15	26.84627131
NCK1-AS1	-1.183684451	5.540110929	-5.796632396	4.35E-08	5.26E-07	7.838376118
CCNB1	-1.184617978	6.754966857	-5.69393873	7.10E-08	8.26E-07	7.361244895
RASGEF1A	-1.189855232	4.145219821	-5.587857192	1.17E-07	1.28E-06	6.873939449
MTFP1	-1.194681951	6.101839571	-6.854672367	2.14E-10	4.09E-09	13.03189843
CTPS1	-1.197385938	6.622809643	-7.426549426	1.02E-11	2.40E-10	16.01886515
FAM64A	-1.200594157	5.450853429	-6.76114569	3.48E-10	6.40E-09	12.55428629
GINS1	-1.203867064	7.475489071	-5.327081899	3.92E-07	3.88E-06	5.700979209
GPX3	-1.204221297	9.216533679	-3.330152127	0.001111744	0.004867613	-1.885361914
LYZ	-1.204649839	7.073182536	-3.321852483	0.001142809	0.004989513	-1.910972092
L1CAM	-1.20606732	3.4481935	-6.671001497	5.56E-10	9.86E-09	12.0970719
TNFRSF11B	-1.206580237	3.850720214	-4.511479647	1.36E-05	9.61E-05	2.282856804
AIF1L	-1.20710035	5.1425355	-5.189823842	7.31E-07	6.77E-06	5.098415156
LOC100507642	-1.208633996	4.722822143	-5.666078708	8.10E-08	9.31E-07	7.232711159
ERP27	-1.20904304	7.358557857	-2.665254696	0.008604135	0.029028992	-3.759317329
GPR56	-1.211158229	6.89549725	-5.92494771	2.34E-08	2.98E-07	8.441797637
MAGEA11	-1.212406297	3.42403	-3.724939961	0.000283213	0.001460548	-0.60549566
RP11-1L12.3	-1.212626828	3.678914857	-5.577436189	1.23E-07	1.34E-06	6.826379163
PGBD5	-1.21370161	3.771763214	-3.828411348	0.000194388	0.001043761	-0.250572919
CCL8	-1.214432528	4.290712143	-4.049281951	8.50E-05	0.00050189	0.533101413
ESRG /// MIR4454	-1.220977614	3.365915429	-4.162462574	5.49E-05	0.000337639	0.948098991
SHMT2	-1.226351865	7.466562524	-7.881113485	8.50E-13	2.54E-11	18.46553076
C2	-1.227217372	4.167410143	-8.046307489	3.40E-13	1.09E-11	19.36851899
LRRC8D	-1.229139044	8.349240929	-9.410582026	1.42E-16	7.32E-15	27.04481716
CHST6	-1.236258078	3.265036643	-4.481773961	1.53E-05	0.000106735	2.166100974
MYCL	-1.23791429	4.287437786	-5.57648509	1.24E-07	1.34E-06	6.822041245
DUXAP10	-1.240795777	4.138002071	-4.10854903	6.77E-05	0.000407244	0.749298958
QPCT	-1.242379328	5.562959071	-4.264883437	3.67E-05	0.00023596	1.331287024
CHEK1	-1.244271839	4.325296339	-8.324529774	7.15E-14	2.59E-12	20.90425704
DSCR8	-1.245285	3.075967214	-3.517311686	0.000589394	0.002806876	-1.293522781

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
SLC39A4	-1.248833049	7.516143571	-5.205485098	6.81E-07	6.33E-06	5.166636656
NFE2L3	-1.251137595	3.996646786	-7.657116791	2.91E-12	7.78E-11	17.25257028
FOLR3	-1.251805407	3.182639714	-5.10581514	1.06E-06	9.44E-06	4.734842929
TOP2A	-1.254538747	6.239560595	-6.162643852	7.29E-09	1.04E-07	9.580054115
KRTCAP3	-1.256565578	6.953921786	-5.125448577	9.75E-07	8.73E-06	4.819451715
BORA	-1.25726607	5.664836214	-6.730194037	4.09E-10	7.41E-09	12.39694849
CDR2L	-1.259875009	6.457727929	-6.125182085	8.77E-09	1.23E-07	9.398946153
POLQ	-1.260227041	5.131681821	-6.244720193	4.84E-09	7.26E-08	9.97903089
PTGDS	-1.264348027	7.932574762	-3.186923796	0.001776254	0.007350795	-2.319635809
LINC00623 /// LINC00869 /// LINC01138 /// LOC103091866	-1.266487216	7.279874286	-6.598066306	8.09E-10	1.39E-08	11.72944366
PLAG1	-1.267543021	4.662027357	-5.495986663	1.80E-07	1.89E-06	6.456596916
CYBA	-1.26841661	6.682854571	-10.61686084	1.20E-19	1.01E-17	34.04462552
GPRC5B	-1.268503556	4.971330839	-8.775152515	5.54E-15	2.38E-13	23.42687523
BIRC5	-1.270700562	5.352860786	-6.317273503	3.37E-09	5.17E-08	10.33416724
SLC7A11	-1.274621525	4.737307476	-5.262443309	5.27E-07	5.05E-06	5.415910561
KRT14	-1.274720881	3.800595	-3.582213876	0.000470235	0.002299543	-1.081964078
ESPL1	-1.275885876	5.885453286	-7.307245375	1.94E-11	4.33E-10	15.38681172
CXADR	-1.279370748	7.576632571	-5.145950788	8.90E-07	8.02E-06	4.908039966
IRF1	-1.279600914	6.275325286	-5.463438134	2.09E-07	2.16E-06	6.309799555
CHCHD10	-1.280483589	8.443164071	-6.156592471	7.51E-09	1.07E-07	9.55075629
NUSAP1	-1.28179633	7.108275714	-5.588302031	1.17E-07	1.28E-06	6.875970887
PLAUR	-1.284817143	5.670731333	-7.208875941	3.29E-11	7.13E-10	14.86906898
SAA1 /// SAA2	-1.286126932	3.147419929	-3.98407127	0.000108862	0.000629874	0.298087085
PLEKHF1	-1.287518731	5.497370214	-5.718297058	6.32E-08	7.46E-07	7.473943059
HAGLR	-1.291269192	4.698871429	-5.653995593	8.58E-08	9.76E-07	7.17708698
RYR1	-1.294976288	3.397793286	-4.799845448	4.05E-06	3.11E-05	3.445523285
NABP1	-1.297264002	4.427811095	-9.297090126	2.74E-16	1.37E-14	26.3941837
TNNT1	-1.3033834	6.350466571	-3.261510793	0.00139425	0.005948863	-2.095526793
AQP9	-1.306178665	4.050010143	-5.679787282	7.59E-08	8.77E-07	7.295907506
FJX1	-1.308880644	6.971232929	-6.19169796	6.31E-09	9.21E-08	9.720947033
SLCO3A1	-1.30898246	4.949217518	-7.037926559	8.17E-11	1.65E-09	13.97694982
CXCR4	-1.30941601	8.231288976	-4.529871616	1.26E-05	8.96E-05	2.355432184
LIMS1 /// LIMS3L	-1.311801619	8.389942929	-11.00123085	1.23E-20	1.25E-18	36.29635245
LAMA5	-1.313109403	8.857776286	-6.63069606	6.84E-10	1.20E-08	11.89365552

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
HCP5	-1.314474943	3.792314929	-4.95188155	2.10E-06	1.72E-05	4.079233643
IFI30 /// PIK3R2	-1.3195775	9.446583143	-5.437585098	2.36E-07	2.42E-06	6.193600051
KRT23	-1.320190313	6.618575857	-2.822735147	0.005460981	0.019759751	-3.348707832
CTSC	-1.320867765	6.456722214	-7.597743445	4.03E-12	1.04E-10	16.93339247
SFRP2	-1.322870388	4.737907714	-2.507967949	0.013292955	0.041988104	-4.148138498
TEAD4	-1.323168385	5.625529214	-6.359003439	2.73E-09	4.25E-08	10.53945215
DEPDC1B	-1.336176326	4.555404286	-6.816709178	2.61E-10	4.93E-09	12.83763968
abParts /// IGKC /// IGKV4-1 /// IGKV4-1	-1.337226714	3.627238643	-3.080028415	0.002495327	0.009941164	-2.63299558
LOC285812	-1.337272055	5.341863143	-4.98015629	1.85E-06	1.55E-05	4.19861483
CFB	-1.338723381	6.022719929	-5.009970993	1.63E-06	1.38E-05	4.325009421
PTP4A3	-1.341893068	4.859046762	-8.197313032	1.46E-13	5.00E-12	20.19981506
VANGL2	-1.359300445	5.934837643	-5.602556024	1.09E-07	1.21E-06	6.941118396
ZDHHC23	-1.364302235	5.440789714	-6.515979652	1.23E-09	2.04E-08	11.31820875
HMGA1	-1.368615246	7.000126071	-9.576799542	5.39E-17	2.93E-15	28.0007388
CYP2S1	-1.376316705	4.055932071	-5.049798372	1.36E-06	1.18E-05	4.494664505
IL18	-1.376498153	5.122377857	-5.997970063	1.64E-08	2.17E-07	8.788701038
SYK	-1.377017225	5.765321804	-7.095596518	6.02E-11	1.25E-09	14.27680003
SHCBP1	-1.37801768	4.547023	-7.054221349	7.49E-11	1.52E-09	14.06155712
ADAMDEC1	-1.380236837	3.457471071	-4.26166805	3.72E-05	0.000238733	1.319148243
CHD7	-1.389020883	5.457491179	-11.23975859	2.98E-21	3.42E-19	37.69627756
BACE2	-1.397246477	7.38199331	-5.303731529	4.36E-07	4.28E-06	5.597733875
HMMR	-1.39857901	6.450209357	-5.959297495	1.98E-08	2.56E-07	8.604668954
TMTC1	-1.404458175	5.540953625	-5.183744865	7.51E-07	6.93E-06	5.071971994
AQP5	-1.405807737	3.454410857	-5.028077492	1.50E-06	1.28E-05	4.402023827
IL15	-1.407918646	4.430303679	-6.218045826	5.53E-09	8.19E-08	9.849039809
ETV4	-1.407983518	4.665576571	-5.771200607	4.91E-08	5.88E-07	7.7197294
KIF18A	-1.413204242	5.517815929	-6.947995185	1.31E-10	2.57E-09	13.51167079
DDIAS	-1.418374384	4.605143214	-6.411421238	2.09E-09	3.32E-08	10.79835812
DCDC2	-1.419766146	4.721463929	-5.926414986	2.32E-08	2.97E-07	8.448743389
HLA-DMB	-1.426082216	9.102630857	-5.550169557	1.40E-07	1.49E-06	6.702203184
OR7E37P	-1.426247443	7.655526429	-8.034126062	3.63E-13	1.15E-11	19.3016988
AADAC	-1.428028807	3.479036571	-5.293872689	4.57E-07	4.43E-06	5.554232324
EZH2	-1.429207064	6.221485429	-5.856824809	3.25E-08	4.05E-07	8.12045055
LIPG	-1.439123958	3.972575357	-5.46124636	2.12E-07	2.18E-06	6.299934575

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
RP11-319E16.2	-1.441388561	4.193458	-5.903462449	2.60E-08	3.29E-07	8.340208501
XDH	-1.442715052	4.555956571	-4.758052311	4.84E-06	3.64E-05	3.273787538
WDR91	-1.444822838	5.146082857	-9.471788366	9.94E-17	5.22E-15	27.39641279
TNFAIP6	-1.445753717	4.3421675	-4.49152613	1.47E-05	0.000103135	2.204367762
WNT7A	-1.451430388	3.413268143	-6.519244777	1.21E-09	2.01E-08	11.33451453
PANK1	-1.45162035	6.699538857	-7.870378673	9.02E-13	2.67E-11	18.40709353
SLC28A3	-1.461244711	3.517080464	-6.19183711	6.30E-09	9.21E-08	9.721622718
SPAG4	-1.461258428	4.051779643	-6.399920513	2.22E-09	3.50E-08	10.74145412
PRC1	-1.469089536	7.7023825	-5.551051072	1.39E-07	1.49E-06	6.70621169
NUF2	-1.474514612	5.918634143	-5.647965187	8.83E-08	1.00E-06	7.149353924
SCGB1D1	-1.489106241	3.447707786	-3.946017452	0.000125626	0.000716823	0.162343649
MX2	-1.510291146	6.156443214	-5.176724806	7.75E-07	7.12E-06	5.041461186
RAD51AP1	-1.511392216	7.309981643	-7.926663378	6.60E-13	2.00E-11	18.71382427
SPP1	-1.51198482	6.7143805	-8.765456411	5.85E-15	2.50E-13	23.37218153
LINC00511 /// LINC00673	-1.531181974	3.744070286	-9.846665664	1.11E-17	6.79E-16	29.5596172
KIF18B	-1.531898816	5.845267857	-7.083790409	6.41E-11	1.32E-09	14.21532216
SLC1A3	-1.542305668	5.020162393	-7.46884846	8.12E-12	1.96E-10	16.24401399
DOK7 /// LOC102724043	-1.544318608	4.416259286	-4.974896871	1.90E-06	1.57E-05	4.176372756
NCAPG	-1.544707704	5.062442571	-7.461587825	8.45E-12	2.02E-10	16.20532855
TNFAIP2	-1.555809148	5.720607036	-8.234039771	1.19E-13	4.21E-12	20.40280747
LOC100288570	-1.558512036	4.552010786	-7.501383037	6.81E-12	1.68E-10	16.41755652
TRIM29	-1.566482232	4.407935381	-8.183617203	1.58E-13	5.36E-12	20.12419641
PCDH19	-1.567710294	5.887611571	-4.532891678	1.24E-05	8.86E-05	2.367370388
CDKN2A	-1.567952124	4.619614595	-6.723139705	4.24E-10	7.64E-09	12.36113986
GRAMD2	-1.569299044	4.0362685	-5.053068405	1.35E-06	1.16E-05	4.508635177
CDCA3	-1.571897921	5.621773429	-7.377813029	1.33E-11	3.06E-10	15.76013124
TP53TG3 /// TP53TG3B /// TP53TG3C /// TP53TG3D	-1.574966146	3.342984286	-5.424399855	2.51E-07	2.56E-06	6.134474708
CDKN3	-1.575462083	6.695536857	-5.715141817	6.42E-08	7.55E-07	7.459328021
CDCA8	-1.576277661	6.388065429	-7.829468095	1.13E-12	3.28E-11	18.18466586
CBS	-1.588365414	4.978846143	-6.425147424	1.95E-09	3.13E-08	10.86634563
FAM132B	-1.593350464	3.667123857	-5.751269023	5.40E-08	6.43E-07	7.626965586
CXCL11	-1.597633537	4.071104571	-5.093748833	1.12E-06	9.95E-06	4.682954017
CXCL9	-1.598090578	4.629525357	-3.585204044	0.000465333	0.002280869	-1.07213968
MMP1	-1.614698902	4.001262786	-4.647129742	7.73E-06	5.69E-05	2.823247025

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log₂FC	AveExpr	t	P value	adj.P.Val	B
SEL1L3	-1.618405978	5.300607679	-12.15761614	1.29E-23	1.94E-21	43.08829184
SLC43A3	-1.625539796	6.895858929	-8.67900479	9.59E-15	3.83E-13	22.88528956
HLA-DMA	-1.635864081	8.004560143	-5.486255467	1.88E-07	1.96E-06	6.412649507
E2F8	-1.639006515	5.511947	-6.432818248	1.88E-09	3.01E-08	10.90437431
PNP	-1.644207358	7.326161929	-7.085166681	6.36E-11	1.31E-09	14.22248636
XK	-1.649870578	3.892516643	-6.088949211	1.05E-08	1.45E-07	9.224380932
SULT1C2	-1.651413539	3.985713196	-7.596588516	4.06E-12	1.05E-10	16.92719385
CCNA2	-1.654644129	5.950407321	-7.722372265	2.04E-12	5.66E-11	17.60451842
DEPDC1	-1.662034074	5.068331304	-8.170699429	1.70E-13	5.70E-12	20.05291358
IL1RAP	-1.669926449	5.186937536	-9.009105931	1.45E-15	6.59E-14	24.75153602
WDR72	-1.671722791	3.622816018	-6.448687433	1.73E-09	2.80E-08	10.98312438
TACC3	-1.673959517	6.0128825	-7.717830302	2.09E-12	5.77E-11	17.57998342
IL1R2	-1.675496449	3.943688214	-5.160356289	8.34E-07	7.60E-06	4.970428247
PBK	-1.676613712	6.417645929	-5.572054038	1.26E-07	1.37E-06	6.801837598
XPR1	-1.67873524	6.551474024	-8.668020485	1.02E-14	4.00E-13	22.82352633
LOC100129098	-1.683079309	4.767016071	-10.37908534	4.87E-19	3.55E-17	32.6553979
QPRT	-1.691034299	6.850699786	-7.211491795	3.25E-11	7.05E-10	14.88279613
RRM2	-1.69336563	8.020688071	-5.737167549	5.78E-08	6.85E-07	7.561454613
UPK1B	-1.695082813	4.16033625	-4.419958812	1.97E-05	0.000133843	1.924991089
GABRP	-1.712180445	4.3987425	-4.335338879	2.78E-05	0.000182033	1.599027378
TSPAN12	-1.71374684	4.893018191	-6.543538149	1.07E-09	1.79E-08	11.45596903
BCL2A1	-1.723056155	4.142655357	-6.389710501	2.34E-09	3.67E-08	10.69098277
MIR6787 /// SLC16A3	-1.728924157	5.758876024	-8.974467088	1.77E-15	7.92E-14	24.55482503
LIF	-1.733450663	4.048653929	-7.223903492	3.04E-11	6.65E-10	14.94795927
MET	-1.743727398	4.600619696	-8.462419047	3.28E-14	1.24E-12	21.67180612
KIF14	-1.744696307	5.2334125	-7.700269186	2.30E-12	6.30E-11	17.48517475
KIF4A	-1.750170805	5.702206214	-6.639205042	6.55E-10	1.16E-08	11.93654646
CDH6	-1.754568359	3.968396869	-7.746026932	1.79E-12	5.04E-11	17.73238929
KIF15	-1.755965047	5.6223335	-7.38744338	1.26E-11	2.93E-10	15.81119905
CXCL16	-1.763550076	6.905295571	-7.892636881	7.97E-13	2.40E-11	18.52829426
LGR6	-1.763746799	4.908284786	-6.11427294	9.26E-09	1.29E-07	9.346324812
IGF2BP3	-1.766797912	3.784757375	-7.61825265	3.60E-12	9.37E-11	17.04353134
GALNT14	-1.773421619	5.942869857	-6.621259388	7.18E-10	1.26E-08	11.84612162
IL32	-1.780536951	5.992066214	-5.919735368	2.40E-08	3.05E-07	8.417131856
MUC20	-1.783766508	5.351045143	-6.766576393	3.39E-10	6.24E-09	12.5819298

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
CLDN6	-1.794947576	3.608837786	-4.903647588	2.59E-06	2.06E-05	3.876678738
HTR3A	-1.798658731	3.917853714	-5.019018727	1.56E-06	1.33E-05	4.363469157
FOXJ1	-1.800789612	4.309955571	-6.970303022	1.17E-10	2.31E-09	13.62681898
B3GNT3	-1.807195133	4.346057929	-6.748132055	3.73E-10	6.81E-09	12.4880893
PSMB9	-1.807959044	7.498693571	-6.15061416	7.73E-09	1.09E-07	9.521828305
ANXA3	-1.808770341	7.291910571	-5.230019472	6.10E-07	5.76E-06	5.273787305
HJURP	-1.814831591	5.691416857	-7.562013218	4.90E-12	1.22E-10	16.74180405
PTH2R	-1.817000606	3.7696085	-4.876085959	2.92E-06	2.30E-05	3.761561718
MKI67	-1.823796766	5.865967929	-7.876115617	8.73E-13	2.60E-11	18.43832005
NDC80	-1.833773295	6.029545	-7.389136848	1.25E-11	2.92E-10	15.82018215
IGF2BP2	-1.834327088	5.297089857	-9.256944975	3.46E-16	1.70E-14	26.1644619
FGF18	-1.84081205	3.765364226	-9.100207778	8.56E-16	4.02E-14	25.26981387
XKR4	-1.84588911	3.888718214	-5.909030365	2.53E-08	3.21E-07	8.366514282
EVA1A	-1.846280843	3.913812286	-7.584684205	4.33E-12	1.11E-10	16.86332476
SLFN13	-1.848372183	4.910275893	-10.16472723	1.72E-18	1.17E-16	31.40620252
C12orf56	-1.85765785	3.702167071	-8.072148168	2.94E-13	9.58E-12	19.51038609
KIF20A	-1.865414972	5.938430786	-7.259788708	2.51E-11	5.52E-10	15.13664455
COL23A1	-1.870753778	3.680221	-5.925923228	2.33E-08	2.97E-07	8.446415405
LRP8	-1.88311738	5.568478595	-7.19339849	3.58E-11	7.61E-10	14.78789449
UBE2C	-1.883136383	8.679389429	-7.352620875	1.52E-11	3.47E-10	15.62667906
PALM3	-1.88733233	4.140970286	-6.454921221	1.68E-09	2.74E-08	11.01408773
VCAN	-1.891390466	8.000613871	-4.865617168	3.05E-06	2.40E-05	3.717956588
TNFRSF21	-1.89558125	7.815015893	-9.486573927	9.12E-17	4.91E-15	27.48141924
PRSS2	-1.901883381	4.356974286	-5.557488201	1.35E-07	1.45E-06	6.735495428
GPT2	-1.939768816	5.761597643	-8.151773961	1.88E-13	6.31E-12	19.94854957
PRKCQ	-1.945729669	4.182722357	-7.464573119	8.32E-12	2.00E-10	16.22123259
MPPED2	-1.947288153	5.568825464	-5.186890555	7.41E-07	6.85E-06	5.085652937
LOC101928554	-1.947408722	3.627642571	-5.624458876	9.86E-08	1.10E-06	7.041428092
CLIC5	-1.952523311	4.1226649	-9.479443399	9.51E-17	5.08E-15	27.44042034
DNAJB13	-1.95410715	5.138902143	-7.701399485	2.29E-12	6.29E-11	17.4912744
KIF2C	-1.956332173	6.127690714	-7.958313639	5.54E-13	1.71E-11	18.88666452
S100A8	-1.97177767	5.430717821	-6.605289076	7.79E-10	1.35E-08	11.76575665
PROM1	-1.991077244	6.957384429	-3.360221395	0.001005683	0.004453636	-1.792122218
SCGB2A1	-1.994668438	9.612887643	-3.469525383	0.00069471	0.003246001	-1.447222279
PLTP	-1.999587367	8.469029714	-8.075102556	2.89E-13	9.47E-12	19.52661624

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
IGF2 /// INS-IGF2	-2.005392838	5.059208714	-4.214246935	4.49E-05	0.000281092	1.14094146
PTTG1	-2.007749886	8.794631643	-7.572817163	4.62E-12	1.16E-10	16.79969653
CDCA7	-2.01098456	4.6834955	-10.73588224	5.91E-20	5.38E-18	34.74119167
BUB1B	-2.022905322	7.235923714	-8.044355456	3.43E-13	1.10E-11	19.35780882
PLAU	-2.026035199	5.819485143	-6.453441158	1.69E-09	2.75E-08	11.00673478
RNF183	-2.0278866	3.984265357	-6.810602345	2.69E-10	5.04E-09	12.80644065
CLDN16	-2.028158305	3.638801214	-4.962212762	2.01E-06	1.66E-05	4.122799009
LL22NC03-N14H11.1	-2.06627679	5.142867786	-6.830720193	2.43E-10	4.61E-09	12.90927246
GJB1	-2.069238305	3.913312857	-7.490329088	7.23E-12	1.77E-10	16.35855809
IGH /// IGHA1 /// IGHA2	-2.073392973	6.744472	-3.271989637	0.001347177	0.00577588	-2.063684936
SLC45A4	-2.076171832	5.895745571	-9.63935753	3.75E-17	2.05E-15	28.36138194
LOC100996740	-2.097980777	8.596641071	-8.586184844	1.63E-14	6.25E-13	22.36410415
PNOC	-2.100008684	4.4997005	-4.64990744	7.65E-06	5.63E-05	2.834435134
FOXM1	-2.104099176	6.1579095	-8.007618089	4.21E-13	1.32E-11	19.15641811
FAM72A /// FAM72B /// FAM72C /// FAM72D	-2.105136809	6.206844429	-7.466649285	8.22E-12	1.98E-10	16.23229488
JUP /// KRT17	-2.106551013	5.604416214	-6.846623976	2.23E-10	4.25E-09	12.99067018
MMP9	-2.114411619	6.515904071	-5.965363657	1.92E-08	2.50E-07	8.633489793
TRIP13	-2.118068286	6.5496865	-8.7420842	6.69E-15	2.82E-13	23.24041408
DUXAP10 /// LINC01296	-2.135383778	6.208581571	-6.813326498	2.66E-10	4.98E-09	12.82035629
S100A1	-2.165055862	5.803220643	-5.706414964	6.69E-08	7.86E-07	7.418931286
NTS	-2.167207093	4.281366	-4.157189263	5.61E-05	0.000343312	0.928565228
KLK10	-2.192287936	4.589040429	-7.690712078	2.42E-12	6.58E-11	17.43361405
CLDN1	-2.19438822	5.834898464	-8.051502116	3.30E-13	1.06E-11	19.39702475
CXCL1	-2.200911383	4.634552286	-6.453217214	1.69E-09	2.75E-08	11.0056223
TPX2	-2.207210729	7.864180929	-7.645792373	3.10E-12	8.20E-11	17.19161516
GLDC	-2.237825994	5.095171071	-5.346096244	3.60E-07	3.59E-06	5.785273111
FAM83D	-2.239391771	7.175402929	-7.958049554	5.55E-13	1.71E-11	18.88522132
MPZL2	-2.242371058	5.664305262	-10.98778936	1.33E-20	1.33E-18	36.21751176
AP000525.9	-2.252131648	6.314689071	-7.013985521	9.27E-11	1.86E-09	13.85280832
CTCFL	-2.253599384	4.131396429	-5.678234753	7.65E-08	8.82E-07	7.2887456
DLGAP5	-2.270358239	6.384005714	-9.055705814	1.11E-15	5.11E-14	25.01647844
ITM2C	-2.281865473	7.625022071	-7.949392702	5.82E-13	1.78E-11	18.83792197
CHODL	-2.282964915	5.033976429	-7.695146981	2.37E-12	6.45E-11	17.45753722
RNF157-AS1	-2.288826686	4.249665929	-9.987542956	4.88E-18	3.15E-16	30.37638661

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
CEP55	-2.329077017	6.434985929	-8.701864166	8.42E-15	3.43E-13	23.01389759
METTL7B	-2.353761098	4.436226929	-9.731020167	2.19E-17	1.23E-15	28.89061789
MFAP5	-2.361502737	4.846933738	-5.93398958	2.24E-08	2.88E-07	8.484616042
LOC100506119	-2.364839612	4.673372714	-7.202711417	3.40E-11	7.29E-10	14.83672848
CTSV	-2.373163788	6.648014357	-10.17303945	1.64E-18	1.13E-16	31.45457848
LY75	-2.388955455	6.080195429	-8.006660593	4.23E-13	1.32E-11	19.15117368
BLACAT1	-2.396044384	4.202003	-9.475053703	9.76E-17	5.16E-15	27.41518378
PTX3	-2.39994554	4.709119214	-6.404657634	2.17E-09	3.42E-08	10.76488604
GJB2	-2.40397946	5.883978286	-6.290969678	3.84E-09	5.83E-08	10.20515162
KLK11	-2.410199972	6.790395143	-5.091385883	1.13E-06	1.00E-05	4.672802412
LAMC2	-2.410204261	4.901325357	-11.72814845	1.64E-22	2.17E-20	40.56550933
BC017398 /// CTD-2314B22.3 /// DQ786293 /// DUXAP10 /// LL22NC03-N64E9.1	-2.413159564	7.874093214	-6.864927266	2.03E-10	3.89E-09	13.08446407
CENPA /// SLC35F6	-2.423516174	6.260433071	-8.556380352	1.93E-14	7.32E-13	22.19710769
GPM6B	-2.433501532	5.644054321	-10.38536439	4.69E-19	3.50E-17	32.69203886
TP53I3	-2.434516903	6.672166429	-10.40424375	4.20E-19	3.17E-17	32.80222385
LOC102659288	-2.464882424	4.3605635	-6.012358467	1.53E-08	2.04E-07	8.85734968
C19orf33	-2.467842642	9.2435445	-6.877595918	1.90E-10	3.65E-09	13.14945552
CMTM7	-2.469030748	7.396003179	-12.68012632	5.82E-25	1.06E-22	46.15236408
RBM38	-2.48205608	6.397490857	-10.82631147	3.46E-20	3.20E-18	35.27086653
AKIP1 /// NUAK2	-2.490084725	7.251666214	-10.51937466	2.13E-19	1.67E-17	33.47464702
NPR1	-2.490605374	5.888236071	-9.31025504	2.54E-16	1.28E-14	26.46956625
LOC101928916 /// NNMT	-2.502454309	7.896829464	-5.81175855	4.04E-08	4.92E-07	7.909094489
CDC20	-2.519191875	7.556243357	-8.722621711	7.48E-15	3.13E-13	23.13076526
AOC1	-2.527426089	4.853220357	-5.069601517	1.25E-06	1.10E-05	4.579365251
GABBR1 /// UBD	-2.539541278	5.105548143	-5.447270301	2.26E-07	2.32E-06	6.237089642
PPP1R14C	-2.552682888	4.379907714	-8.052221703	3.29E-13	1.06E-11	19.40097404
BBOX1	-2.560112358	4.248998571	-6.637263345	6.61E-10	1.17E-08	11.92675652
LZTS3	-2.569510199	8.315643714	-12.99896928	8.86E-26	2.11E-23	48.01719048
NPTX2	-2.571354972	5.575901429	-7.310582166	1.91E-11	4.27E-10	15.40442869
TTK	-2.579862263	6.1765275	-9.292779554	2.81E-16	1.39E-14	26.36950653
CXCL10	-2.583280994	7.3605845	-5.96413673	1.93E-08	2.50E-07	8.627659169
UGT8	-2.604550895	4.522227643	-10.50283932	2.35E-19	1.81E-17	33.37802244
GSTP1	-2.607308807	10.22865321	-12.23522191	8.12E-24	1.26E-21	43.54386014

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
WFDC2	-2.618036234	6.239601286	-9.718770896	2.36E-17	1.31E-15	28.81983995
DOK5	-2.621438651	5.85858225	-7.313432685	1.88E-11	4.22E-10	15.41948114
UCA1	-2.644154261	5.980088214	-6.636877741	6.63E-10	1.17E-08	11.92481249
C3	-2.645212169	10.3116875	-6.040986392	1.33E-08	1.80E-07	8.994222063
CXCL8	-2.655356245	5.142081393	-7.811470621	1.25E-12	3.59E-11	18.08695553
KCTD14 /// NDUFC2-KCTD14	-2.666933324	5.011613143	-8.580816695	1.68E-14	6.41E-13	22.3340131
ERV3-2	-2.673466534	5.720998286	-9.781075877	1.64E-17	9.58E-16	29.18001419
PI3	-2.693421955	4.298390071	-7.172300532	4.00E-11	8.46E-10	14.67736974
FZD10	-2.706051335	4.842903286	-7.820620576	1.19E-12	3.43E-11	18.13662088
IL4I1	-2.749326733	4.411633071	-9.136691609	6.94E-16	3.30E-14	25.47773342
GALNT12	-2.788253035	5.636547893	-9.830913371	1.22E-17	7.35E-16	29.46841013
TMEM139	-2.830511368	5.375257536	-9.878061491	9.27E-18	5.86E-16	29.74147576
LGR5	-2.837103887	5.188232893	-6.941720202	1.36E-10	2.65E-09	13.47931264
PRSS21	-2.839493078	4.429420286	-8.329671929	6.94E-14	2.53E-12	20.93280689
LRRTM1	-2.861259176	4.450794929	-6.746278617	3.76E-10	6.85E-09	12.47866655
LOC613266	-2.897771449	4.515374643	-6.978684883	1.12E-10	2.22E-09	13.67012998
OGDHL	-2.90488392	5.011768357	-11.29949437	2.09E-21	2.54E-19	38.04707294
ASS1	-2.909636004	10.67516693	-8.972849303	1.78E-15	7.94E-14	24.54564257
FAM171A1	-2.918004034	7.712521143	-12.970593	1.05E-25	2.40E-23	47.85141373
OSBPL3	-2.924944957	6.052306429	-14.15928483	9.81E-29	3.20E-26	54.75439653
LAMP3	-2.927672263	5.471143286	-9.468508895	1.01E-16	5.27E-15	27.37756192
ZBED2	-2.956156061	4.430888214	-7.443139347	9.34E-12	2.21E-10	16.10710494
AL833181	-2.964546496	4.770703929	-9.845980285	1.12E-17	6.79E-16	29.55564828
PRKX /// PRKY	-2.973552093	6.262295786	-12.34844363	4.15E-24	6.76E-22	44.20824963
GPR64	-2.976450218	5.257588071	-6.262651015	4.43E-09	6.67E-08	10.06658717
LAMB3	-2.991977661	5.936213643	-10.07918809	2.85E-18	1.88E-16	30.90870413
LEMD1	-3.007748286	4.967367786	-8.215958812	1.32E-13	4.55E-12	20.30283349
FAM107A	-3.014341473	5.605557464	-7.973020158	5.11E-13	1.59E-11	18.96706257
BCL11A	-3.111618194	4.832396161	-10.09675192	2.57E-18	1.73E-16	31.01080633
SPON1	-3.115980366	7.428923114	-8.683512625	9.35E-15	3.76E-13	22.9106431
SLC34A2	-3.153931799	8.2162195	-12.06807061	2.19E-23	3.15E-21	42.56248416
LIMS3 /// LIMS3L	-3.209601392	5.223536571	-10.29552807	7.97E-19	5.74E-17	32.16806122
KLF5	-3.243348788	7.284616393	-13.12935692	4.11E-26	1.02E-23	48.77840496
CCNA1	-3.262721847	5.068744071	-8.235376274	1.18E-13	4.20E-12	20.41020028

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	t	P value	adj.P.Val	B
IFI27	-3.306603873	9.742655286	-8.112091976	2.35E-13	7.75E-12	19.72999874
MEIS1	-3.318108518	8.075566571	-10.83399297	3.31E-20	3.10E-18	35.31587579
PRIMA1	-3.367461269	6.311601071	-8.38042749	5.22E-14	1.95E-12	21.21491678
PRAME	-3.464904242	7.035195929	-9.023335369	1.33E-15	6.12E-14	24.83240022
S100A4	-3.496434934	9.000057429	-10.54034145	1.88E-19	1.51E-17	33.59718978
LIMS3-LOC440895 /// LOC100288570 /// LOC100507334 /// LOC440895	-3.545945743	5.326328607	-9.758930052	1.86E-17	1.08E-15	29.05194551
KLK8	-3.584958958	5.745302571	-10.85601292	2.90E-20	2.77E-18	35.4449137
CHI3L1	-3.644173396	5.648117667	-10.8610038	2.82E-20	2.73E-18	35.47416315
SGPP2	-3.645183471	5.393195857	-11.51577482	5.80E-22	7.33E-20	39.3176059
LPAR3	-3.662600407	5.611580036	-9.108109995	8.18E-16	3.87E-14	25.31483088
NMU	-3.710589053	6.017152786	-10.49784871	2.42E-19	1.85E-17	33.34886292
C1orf106	-3.720261553	7.729107857	-10.71297419	6.77E-20	6.07E-18	34.60706979
PTGS1	-3.778184285	6.493752268	-9.735204238	2.14E-17	1.22E-15	28.91479775
S100A2	-3.918186809	5.598313714	-9.910160043	7.68E-18	4.90E-16	29.92750509
MAL	-3.926978428	6.114526571	-7.675839869	2.63E-12	7.11E-11	17.35342912
SST	-3.966021146	5.391469857	-6.937696868	1.39E-10	2.69E-09	13.45857297
PAX8	-4.003006438	6.354912223	-15.04625442	5.78E-31	2.75E-28	59.8344034
DAPL1	-4.065465133	5.863720929	-7.212478759	3.23E-11	7.04E-10	14.88797598
ST6GALNAC1	-4.137415445	6.165665786	-10.7017727	7.23E-20	6.40E-18	34.5414964
KLK6	-4.151019063	6.175350571	-8.814828789	4.41E-15	1.91E-13	23.6508571
TMPRSS4	-4.15424554	6.048142786	-11.08748661	7.36E-21	7.73E-19	36.80241555
EGFL6	-4.159952064	6.055993786	-10.37866633	4.88E-19	3.55E-17	32.65295288
ASRGL1	-4.1638067	7.450773214	-12.23607483	8.08E-24	1.26E-21	43.54886626
LYPD1	-4.164624508	5.173730929	-8.711467062	7.97E-15	3.29E-13	23.06795318
KLK7	-4.452454347	6.285096893	-10.54874202	1.79E-19	1.46E-17	33.64629493
CLDN10	-4.454913333	6.547002714	-10.6689233	8.79E-20	7.66E-18	34.34923161
DEFB1	-4.455252424	6.277673643	-9.824745331	1.27E-17	7.54E-16	29.43270352
PSAT1	-4.621361013	7.486651107	-16.56656941	1.04E-34	8.07E-32	68.35988431
C1orf186 /// LOC101929219	-4.723931184	6.992659143	-12.84197019	2.24E-25	4.62E-23	47.09950866
MMP7	-5.167410152	6.898447643	-11.74338649	1.50E-22	2.02E-20	40.65504844
FOXQ1	-5.423759394	6.875526571	-14.79073587	2.52E-30	1.11E-27	58.37820897
LCN2	-5.443904384	8.042486643	-11.27138642	2.47E-21	2.89E-19	37.88200217

Table S2 (*continued*)

Table S2 (*continued*)

Gene name	Log$_2$FC	AveExpr	*t*	P value	adj.P.Val	B
SOX17	-5.562473698	7.337286429	-16.77234368	3.31E-35	3.42E-32	69.49406079
CP	-5.7125366	7.08038625	-12.74310397	4.01E-25	7.76E-23	46.52105203
MUC16	-5.735516061	7.585735071	-10.26538734	9.52E-19	6.77E-17	31.99239052
FOLR1	-5.999927898	8.1420415	-12.61193078	8.72E-25	1.54E-22	45.75295463
C1orf186 /// LOC100505650 /// LOC101929219	-6.221608475	7.184941607	-15.88339213	4.87E-33	3.02E-30	64.55965131
SLPI	-6.414260568	10.51976579	-14.57989659	8.53E-30	3.10E-27	57.17208926

OCSTBC, ovarian cancer secondary to breast cancer; POC, primary ovarian cancer; DEGs, differentially expressed genes; FC, fold change.

Table S3 Results of association analysis of primary ovarian cancer and ovarian cancer metastasized from the breast

CHR	SNP	A1	A2	A1FREQ	A2FREQ	OR	P value	Mapped genes	Nearby genes
5	rs10514154	C	T	0	0.6667	0	0.00008457	DMGDH	BHMT2, ARSB, BHMT
2	rs1530155	C	T	0.05556	0.8	0.01471	0.0001187	-	-
3	rs341865	C	G	0.1667	0.9	0.02222	0.0002733	-	ZNF385D, VENTXP7
8	rs4302823	T	C	0.0625	0.75	0.02222	0.0002733	XKR4	SBF1P1
11	rs533727	G	A	0.1667	0.8333	0.04	0.0005367	DISC1FP1	MIR4490, CHORDC1
2	rs764142	C	T	0.1111	0	0.03125	0.0005384	-	-
4	rs1020231	G	A	0.1111	0.8	0.03125	0.0005384	-	HAND2, HAND2-AS1, GALNT7, SAP30, HMGB2, SCRG1
3	rs10514694	G	A	0	0.6	0	0.0005574	-	STAC
6	rs1145735	G	A	0	0.6	0	0.0005574	MAP3K7	-
12	rs2014710	C	A	0.6111	0	-	0.0006045	CFAP54	NEDD1
13	rs1926624	T	A	0.6111	0	-	0.0006045	GPC5	GPC5–AS2
17	rs4129767	T	C	0.6111	0	-	0.0006045	PGS1	BIRC5, TMEM235, LOC100996291, DNAH17-AS1, DNAH17, LOC101928674, SOCS3
18	rs555107	A	G	0.6111	0	-	0.0006045	-	PTPRM
18	rs501796	C	T	0.6111	0	-	0.0006045	-	PTPPM
6	rs898893	T	C	0.75	0.08333	33	0.0006371	CRYBG1, AIM1	RTN4IP1, QRSL1, LOC100422737
11	rs7107185	T	C	0.75	0.08333	33	0.0006371	CWC15	KDM4D, KDM4E, AMOTL1, SRSF8, ENDOD1, SESN3, LOC101929295
11	rs1940007	C	T	0.75	0.08333	33	0.0006371	KIRREL3	KIRREL3–AS2, MIR3167, KIRREL3–AS3, LOC101929473
11	rs1940006	T	C	0.75	0.08333	33	0.0006371	KIRREL3	KIRREL3–AS2, MIR3167, KIRREL3–AS3, LOC101929473
2	rs2247613	A	C	0.05556	0.6667	0.02941	0.0006381	-	-
2	rs957845	A	G	0.05556	0.6667	0.02941	0.0006381	-	-
2	rs2251355	G	C	0.05556	0.6667	0.02941	0.0006381	-	-
2	rs2357647	C	T	0.05556	0.6667	0.02941	0.0006381	-	-
2	rs726129	G	C	0.05556	0.6667	0.02941	0.0006381	-	-
2	rs726130	T	C	0.05556	0.6667	0.02941	0.0006381	-	-
4	rs4129780	C	A	0	0.5833	0	0.0006689	ART3	NUP54, SCARB2, PPEF2, NAAA, CXCL9, CXCL10, CXCL11, SDAD1, FAM47E

Table S3 (*continued*)

Table S3 (*continued*)

CHR	SNP	A1	A2	A1FREQ	A2FREQ	OR	P value	Mapped genes	Nearby genes
15	rs2125310	T	A	0.05556	0.7	0.02521	0.0007094	*AC087636.1, AC087633.2*	*LINC01197*
7	rs10486269	A	G	0.7222	0.08333	28.6	0.0007964	-	*NXPH1*
7	rs5007445	T	G	0.7222	0.08333	28.6	0.0007964	-	*NXPH1*
11	rs4128561	T	C	0.7222	0.08333	28.6	0.0007964	*ETS1*	*MIR6090, LOC101929517, FLI1, SENCR*
16	rs1381452	T	A	0.6667	0	-	0.0008835	-	*LOC101927364*

A1: minor allele; A2: major allele; A1FREQ: allele frequency of A1; A2FREQ: allele frequency of A2; SNP: the P values <1E-3 generated by Fisher's exact test; Mapped genes: gene where an SNP is located; Nearby genes: ±200 kb genomic regions of mapped genes; CHR, chromosome; SNP, single nucleotide polymorphism; OR, odds ratio.