

Supplementary Material

1 Supplementary Figures and Tables

1.1 Supplementary Figures

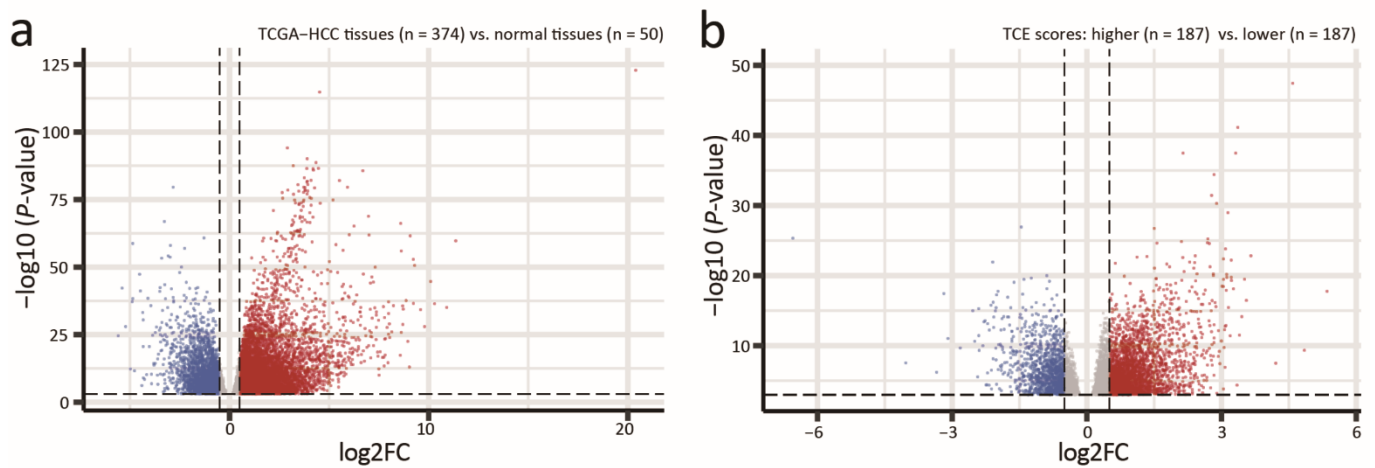


Figure S1. Genes differentially expressed between HCC and normal liver tissues (**a**) and between HCCs with higher and lower T cell exclusion levels (**b**), as shown in volcano plots. The X-axis represents \log_2FC and the Y-axis represents $-\log_{10}$ (adjusted P -value).

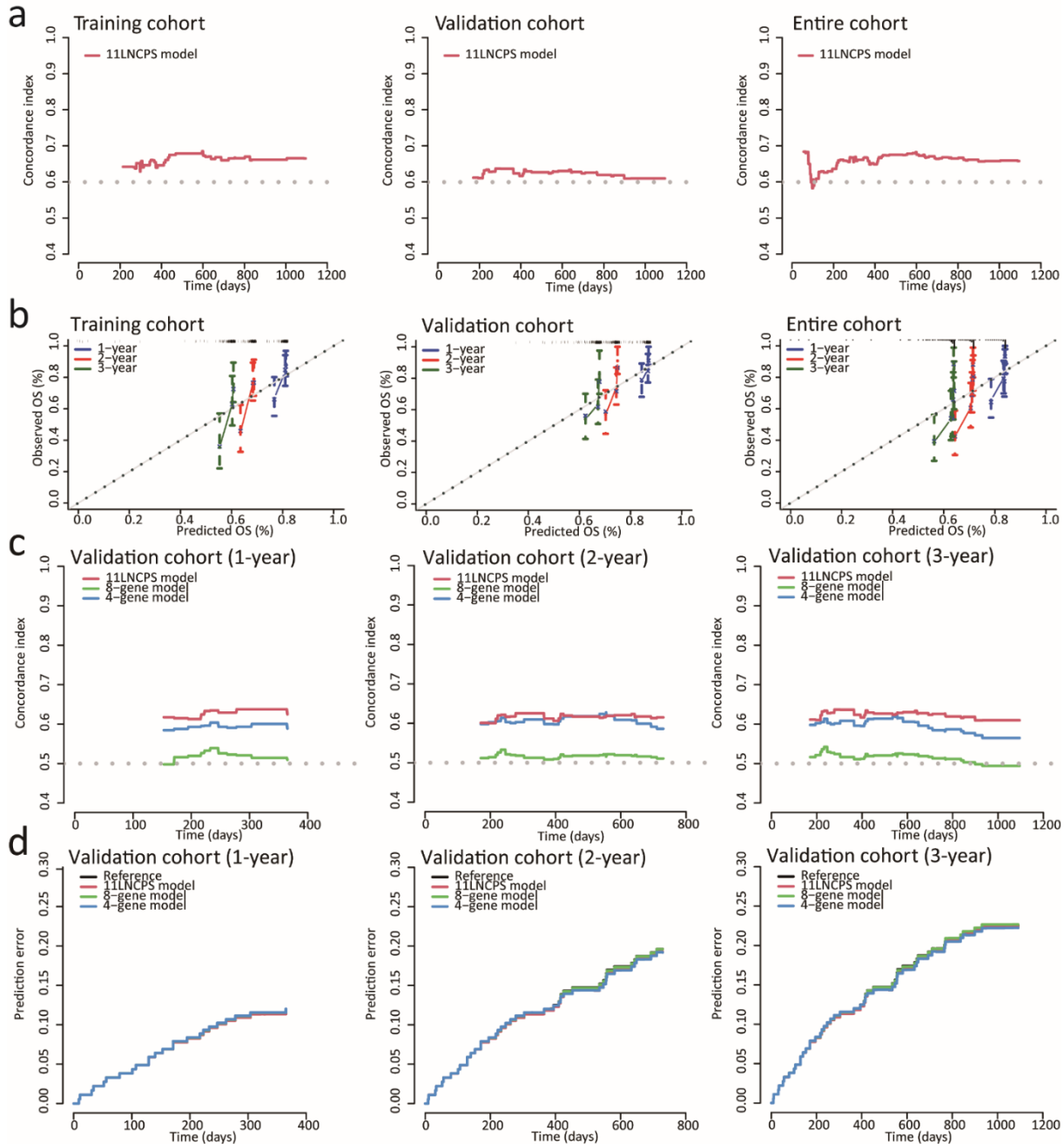


Figure S2. Validation of the 11LNCPS model by different approaches. (a) Prediction of the concordance index (C-index) curves of 3-year overall survival (OS) by the 11LNCPS model in the training cohort (left), validation cohort (middle), or entire cohort (right). (b) Calibration curves of the 11LNCPS model for predicting the OS probability at 1, 2, and 3 years in the training cohort (left), validation cohort (center), and entire cohort (right). (c) Comparison of C-index curves of 1, 2, and 3-year OS predicted by the 11LNCPS model and two previously published models in the validation cohort. (d) Comparison of prediction error curves of 1, 2, and 3-year OS predicted by the 11LNCPS model and two previously published models in the validation cohort.

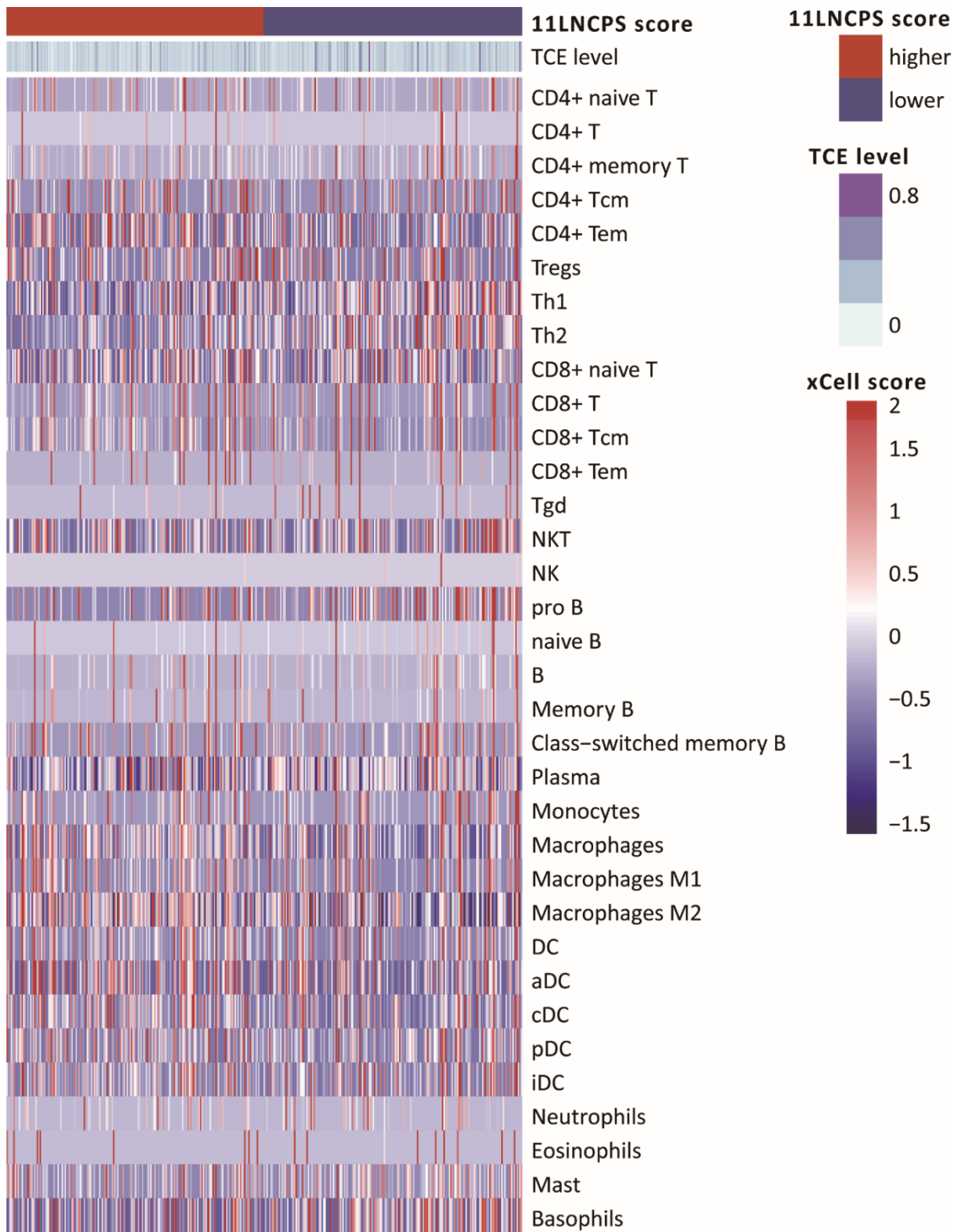


Figure S3. Comparison of infiltration status of 34 types of immune cells between HCCs with higher and lower 11LNCPS scores. The abundance of each immune cell type was estimated by the xCell assay and is shown in xCell scores and visualized in a heatmap. TCE scores are also shown, and their levels are indicated by gradient color bars at right.

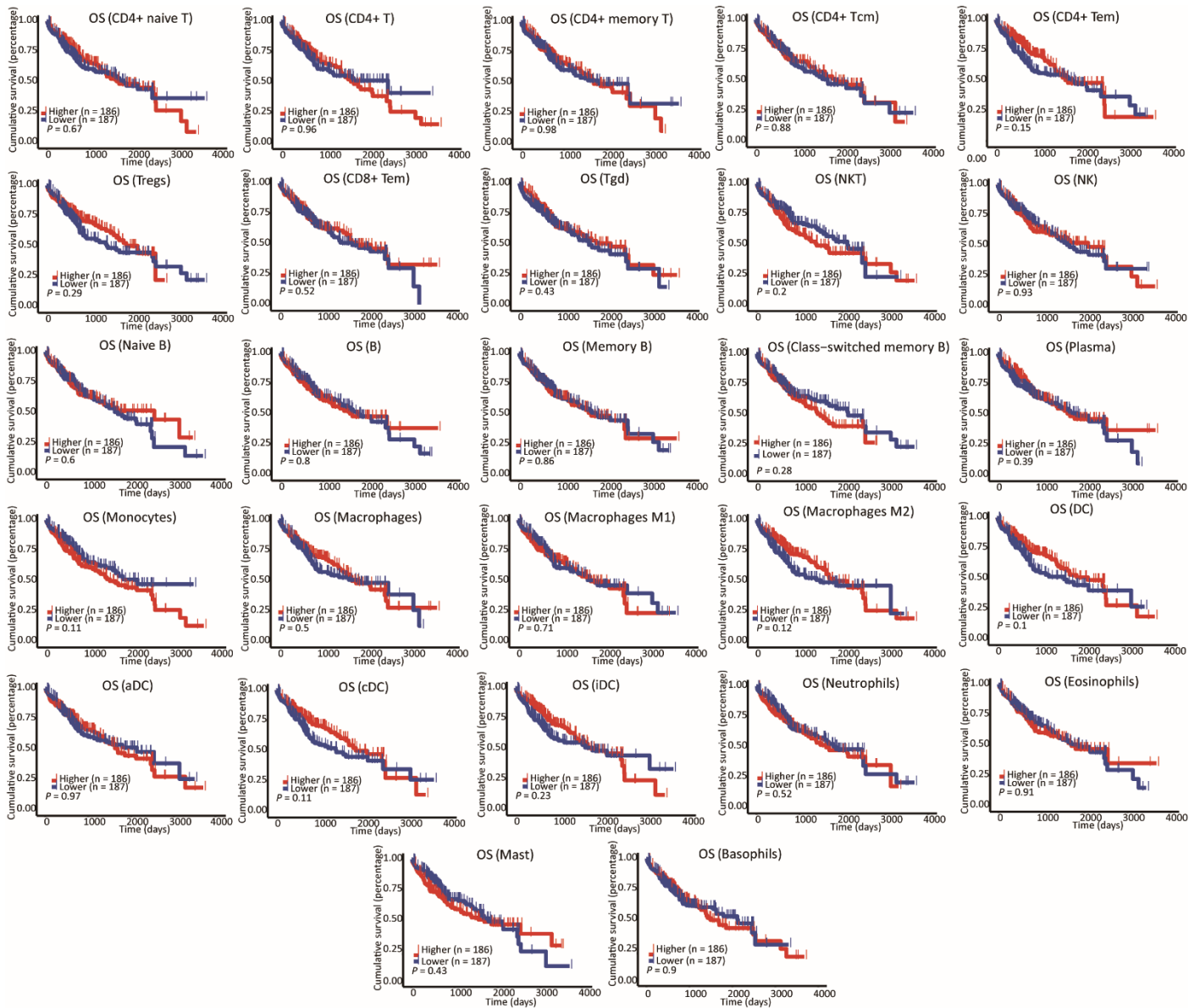


Figure S4. Types of immune cells whose infiltration did not correlate with patient overall survival (OS) in HCC. The Kaplan-Meier analysis was used to determine the correlation.

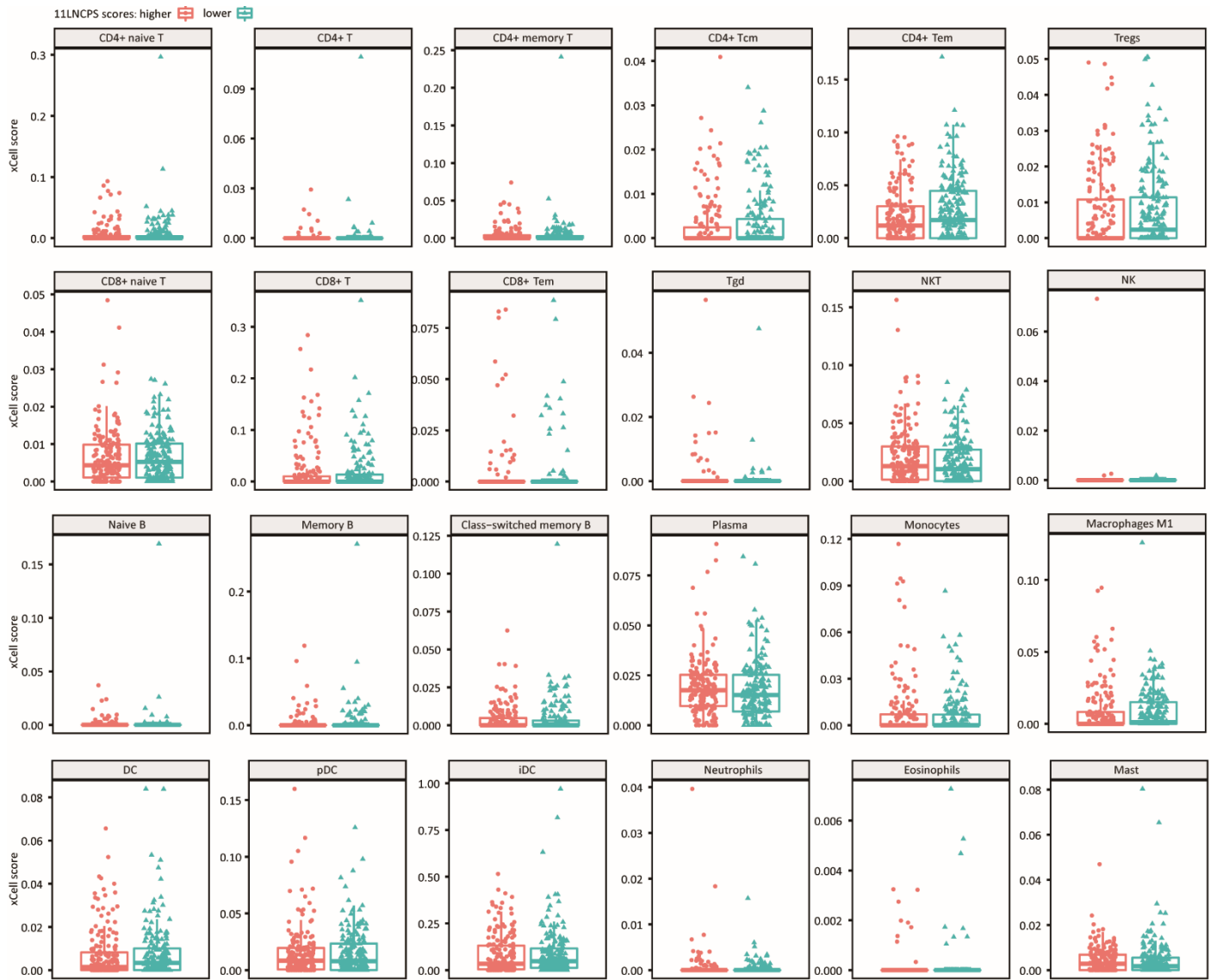


Figure S5. Types of immune cells whose infiltration level did not differ between HCCs with higher 11LNCPS scores and those with lower scores. The Wilcoxon test was used for the analysis.

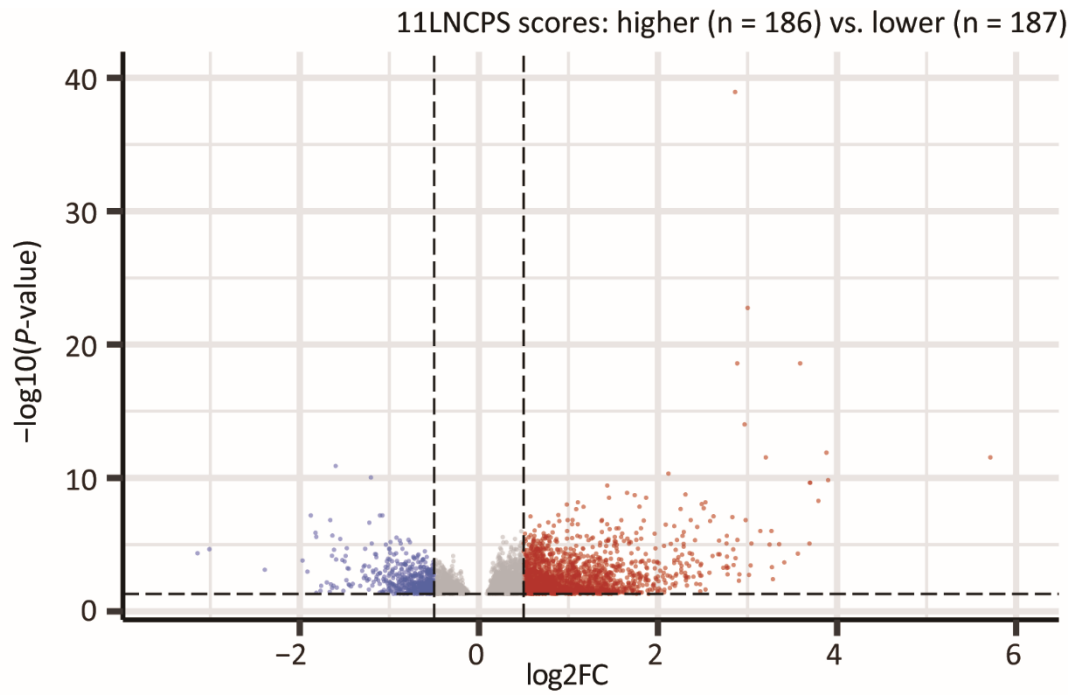


Figure S6. Volcano plot of differentially expressed genes between HCCs with higher and lower 11LNCPS scores. X-axis represents log₂FC and the Y-axis represents -log₁₀ (adjusted *P*-value).

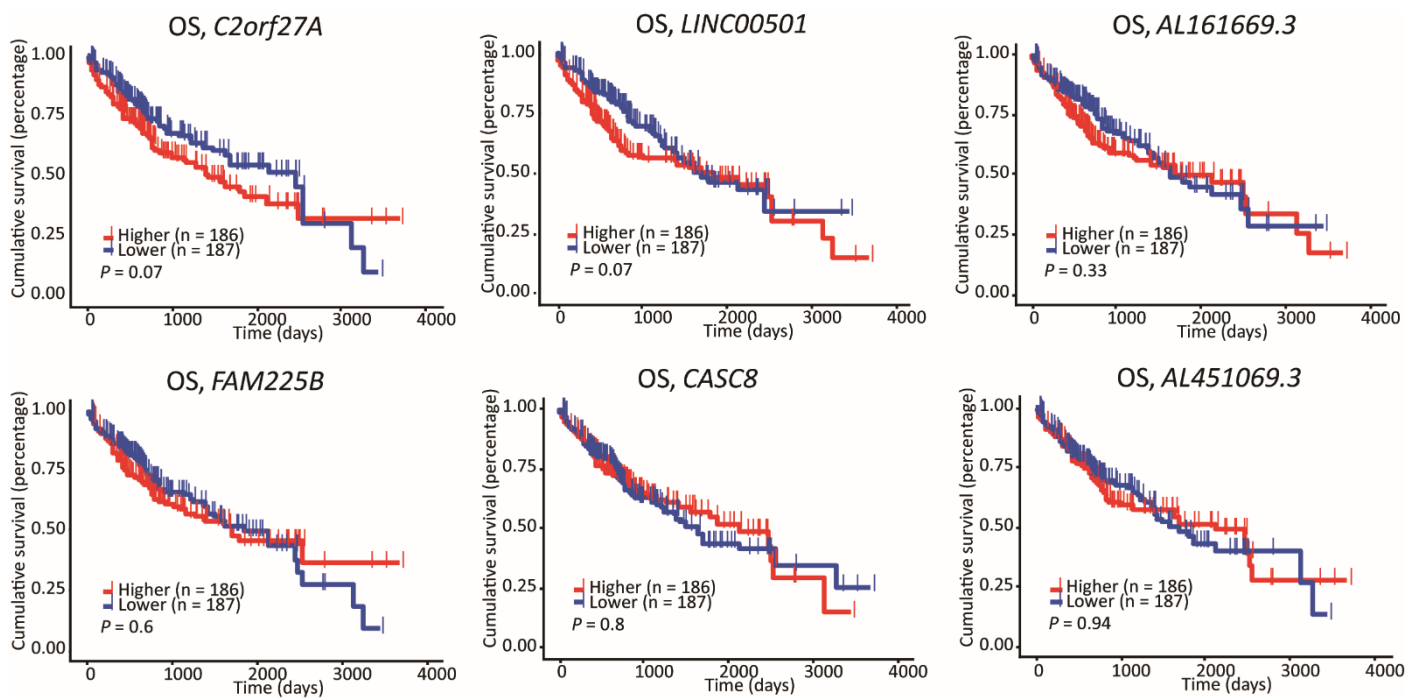


Figure S7. LncRNAs of the 11LNCPS that do not have a significant correlation with overall survival (OS) in HCC. Kaplan-Meier survival analysis was used for the determination.

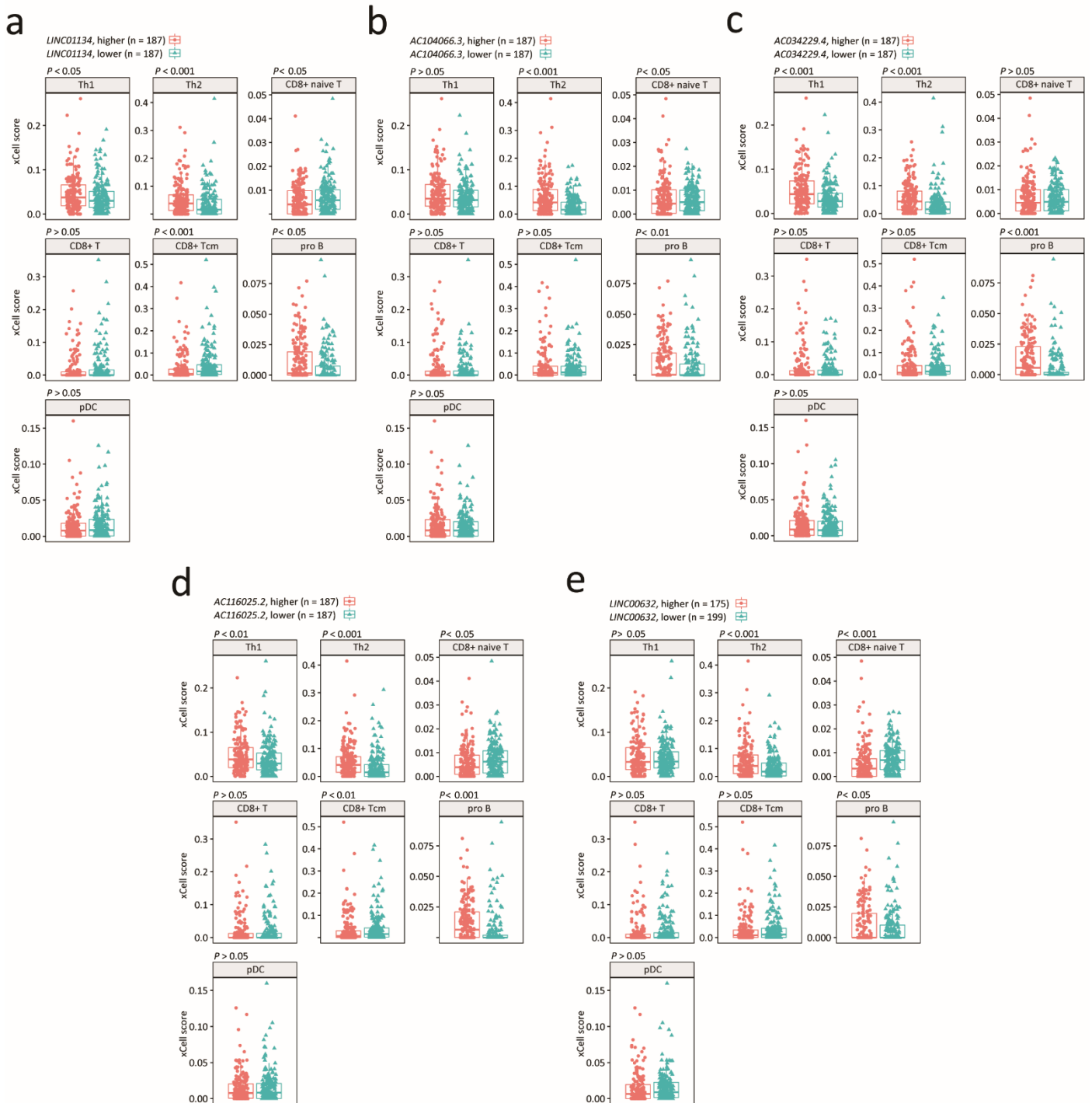


Figure S8. Comparison of infiltration levels of prognosis-associated immune cell types between HCCs with higher and lower expression levels of a prognosis-associated 11LNCPS lncRNA. The Wilcoxon test was used to compare, and the results are shown in box plots. The prognosis-associated 11LNCPS lncRNAs include *LINC01134* (a), *AC104066.3* (b), *AC034229.4* (c), *AC116025.2* (d), and *LINC00632* (e). The infiltration levels are indicated by xCell scores. HCCs were divided into higher and lower groups for each lncRNA using its median expression level.

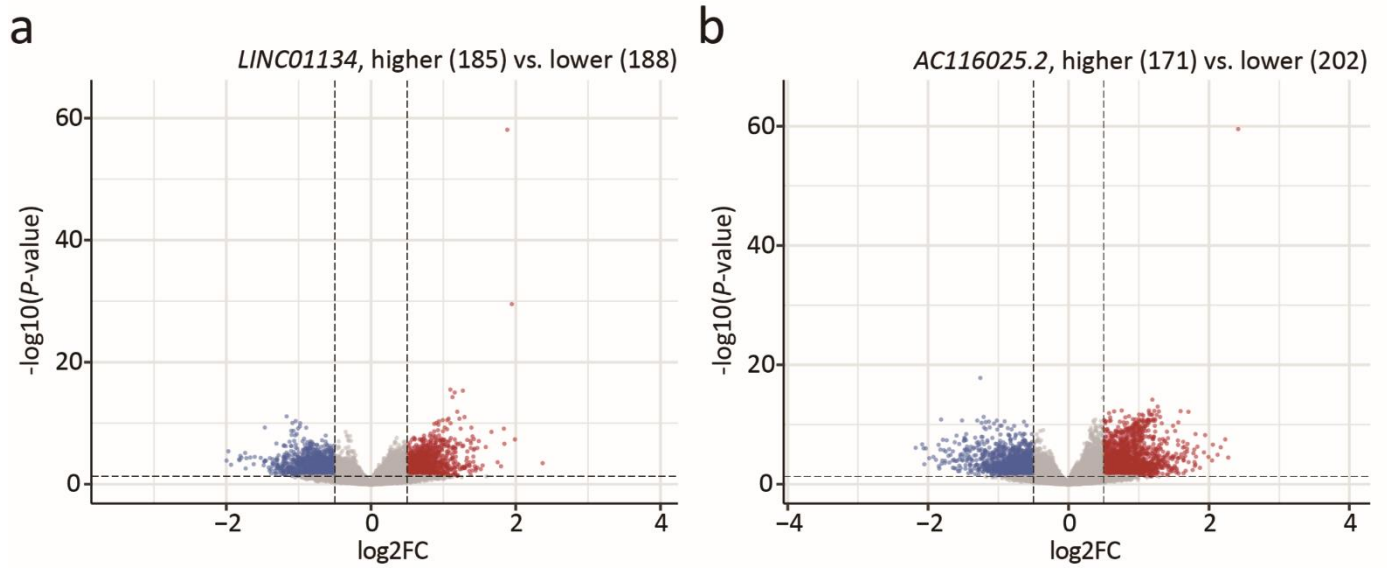


Figure S9. Volcano plots of differentially expressed genes between HCCs with higher and lower *LINC01134* or *AC116025.2*. The X-axis represents \log_2FC and the Y-axis represents $-\log_{10}$ (adjusted *P*-value).

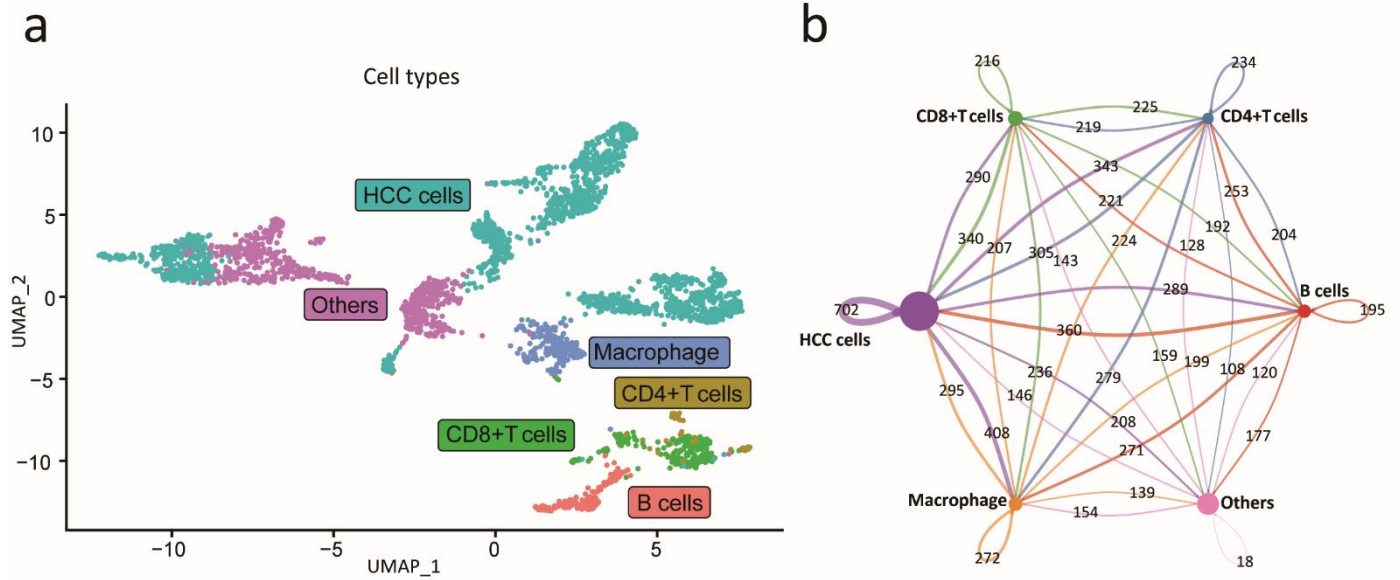


Figure S10. Heterotypic signaling crosstalk between HCC cells and immune cells estimated by single-cell RNA sequencing analysis. (a) Identification of cancer and immune cell types by single-cell sequencing analysis of HCCs, as shown in the UMAP plot. (b) Cell-cell communication network among cancer and immune cell types identified in panel A, as established by the CellChat analysis. In the circle plot, each line indicates crosstalk between two cell types based on a ligand-receptor interaction, and the number on a line indicates the number of ligand-receptor pairs.

1.2 Supplementary table

Table S1. LncRNAs that are differentially expressed and TCE-associated in HCCs (n = 336). Shown for each lncRNA include gene symbol, ENSEMBL ID, chromosomal location (Chr.), sequence position in a chromosome (start and end), hazard ratio (HR) for survival and its 95% confidence interval from low to high (HR.95L-HR.95H) expression fold change in log2 and its adjusted *P* value, and TCE fold change in log2 and its adjusted *P* value. Asterisks indicate the 54 lncRNAs whose expression alterations were significantly associated with overall survival in the training cohort.

SYMBOL	ENSEMBL ID	Chr	Start	End	HR	HR.95L-HR.95H	<i>P</i> value	Expression fold change	<i>P</i> value	TCE fold change	<i>P</i> value
<i>LINC02593</i>	ENSG00000223764	1	916865	921016	0.31669 4	0.055174436-1.817784769	0.197168 1	- 1.6356429	1.17E-06	0.94219	0.00025 9
<i>AL645608.7</i>	ENSG00000272512	1	995966	998051	0.99254 5	0.82096842-1.199979372	0.938401 2	0.9074497 1	0.00063 6	1.23612 8	2.78E-12
<i>LINC01134*</i>	ENSG00000236423	1	3900352	3917225	2.95709 9	1.490261982-5.8677175	0.001928 4	1.2538463 9	3.36E-12	0.55616 4	1.83E-05
<i>LINC02766</i>	ENSG00000229484	1	12527724	12528420	0.90335 1	0.699379724-1.166808772	0.436301 5	- 0.8638034	8.00E-05	- 0.76884	1.48E-06
<i>AL121992.3</i>	ENSG00000272510	1	15565611	15565956	1.0809	0.998277796-1.170360857	0.055177 2	-0.771452	0.00013 1	- 0.80305	1.58E-08
<i>SNHG3*</i>	ENSG00000242125	1	28505980	28510892	1.08035 3	1.024245347-1.139533346	0.004506 2	1.6735193 6	2.46E-21	0.84009	1.54E-11
<i>AL357079.1*</i>	ENSG00000237950	1	43937918	43946551	1.87064	1.143125436-3.061165206	0.012692 4	1.4259950 2	5.45E-12	0.62387 2	2.80E-07
<i>AL592166.1</i>	ENSG00000225721	1	44759037	44775810	1.97512 4	0.649544515-6.005924198	0.230322 9	1.1441289 6	6.64E-08	0.54280 4	1.38E-05
<i>LINC01389</i>	ENSG00000225762	1	47380928	47408477	1.06031	0.849051567-1.32413227	0.605464 3	1.8929204	1.75E-15	- 0.75632	2.43E-06
<i>LINC01767</i>	ENSG00000223956	1	56414935	56417137	0.99852 9	0.983602542-1.013682678	0.848121 3	- 1.5757693	5.52E-11	- 1.14866	1.38E-11
<i>AL161740.1</i>	ENSG00000236341	1	56963886	56996757	0.88021 4	0.541592462-1.430552138	0.606606 9	-1.641166	5.81E-15	- 0.64658	8.15E-05
<i>LINC01702</i>	ENSG00000235200	1	67522299	67532612	0.98926 7	0.972275419-1.006555031	0.222156 4	- 1.4439763	2.39E-05	- 1.08018	1.76E-05
<i>AL583808.1</i>	ENSG00000225087	1	72636547	72899240	1.27194 2	0.84603444-1.912257995	0.247569 2	3.3391966 5	2.49E-05	1.69858 8	0.00095 4
<i>LINC00622</i>	ENSG00000260941	1	11959770 2	11959927 1	1.36356	0.983028379-1.891396773	0.063249 3	1.5415678 6	8.45E-12	0.81551 9	2.80E-08
<i>AL592494.1</i>	ENSG00000228826	1	12149432 9	12151158 8	1.02947 3	0.973937159-1.088175256	0.304606	- 0.8369263	0.00017 2	- 0.90382	9.96E-09

Supplementary Material

<i>LINC02802*</i>	ENSG000002325 27	1	14422702 9	14425032 6	1.78599 9	1.278897676- 2.494173334	0.000665	2.4350251 9	5.99E- 14	0.86951 3	2.55E- 05
<i>AL356356.1</i> *	ENSG000002377 81	1	15054856 2	15055772 4	1.18038 2	1.010292802- 1.379107934	0.036712	1.5920240 4	1.91E- 08	0.57952 4	0.00025 2
<i>AL355388.1</i>	ENSG000002242 76	1	15599139 0	15600178 7	3.58116 6	0.912334442- 14.05707034	0.067480 6	2.5465570 6	1.26E- 16	0.73826 5	5.63E- 05
<i>SNHG28</i>	ENSG000001880 04	1	15983449 5	15985523 7	1.00548 9	0.297047169- 3.403528222	0.992979 4	1.2671709 3	9.22E- 07	0.73900 7	2.90E- 05
<i>AL590560.3</i>	ENSG000002726 68	1	15985487 0	15986768 5	1.16816 3	0.736262128- 1.853422269	0.509274 8	1.0357152 9	0.00085 1	0.93555 3	4.05E- 06
<i>LINC00862</i>	ENSG000002037 21	1	20025341 9	20040070 5	1.16702 3	0.728979746- 1.868286277	0.520010 6	1.6456133 6	3.03E- 11	0.59392 1	0.00080 3
<i>AL358473.1</i>	ENSG000002291 91	1	20102394 9	20102879 2	242.628 9	0.196410052- 299723.9922	0.130564 2	2.5038162 6	2.15E- 08	1.20057 1	1.78E- 06
<i>AL391832.1</i>	ENSG000002375 20	1	23495723 1	23495998 9	0.93732 2	0.783115257- 1.121894449	0.480313 5	2.4111612 5	5.80E- 12	- 0.93983	5.60E- 05
<i>LINC01348</i>	ENSG000002805 87	1	23506547 9	23507422 0	1.01518 3	0.969429362- 1.063096491	0.521888 4	- 1.1609267	5.34E- 05	- 1.33613	4.06E- 11
<i>AC114810.1</i>	ENSG000002718 68	2	3496956	3497428	0.94738 2	0.814223435- 1.102317659	0.484281 6	- 0.8760405	4.70E- 07	- 0.59407	2.73E- 06
<i>U91324.1</i>	ENSG000002297 40	2	8139335	8144950	1.02384 2	0.940355436- 1.114739941	0.587184 1	- 1.2856383	1.91E- 08	- 0.79493	2.75E- 06
<i>AC010969.1</i>	ENSG000001885 25	2	10001757	10006030	1.08879 6	0.859907482- 1.378608816	0.479870 5	- 1.8967632	9.03E- 06	- 1.09101	0.00038
<i>AC115619.1</i>	ENSG000002610 12	2	20999313	21000917	1.00021 9	0.986575642- 1.014051801	0.975028 3	- 1.0568876	3.21E- 07	-1.1284	2.70E- 15
<i>AC018467.1</i>	ENSG000002324 51	2	23018125	23199056	0.96216 3	0.795036963- 1.16442112	0.691937 3	- 1.0434734	8.33E- 05	- 0.82785	2.36E- 05
<i>AC104695.2</i>	ENSG000002299 51	2	28384409	28394672	0.37023 4	0.028569086- 4.797964137	0.447142 2	1.6925281 5	3.21E- 06	0.79752	0.00081 2
<i>AC073283.2</i>	ENSG000002260 87	2	47225781	47240886	1.05395 2	0.878778636- 1.264042772	0.570989 7	1.5505157 7	0.00057	- 1.43863	3.81E- 06
<i>AC007099.1</i>	ENSG000002311 72	2	75524068	75542706	1.01203 3	0.987246813- 1.037441683	0.344432 5	3.1477330 3	2.65E- 10	1.84318 8	3.61E- 09
<i>AC092683.1</i> *	ENSG000002306 06	2	97416165	97433527	70.7485 3	1.311361912- 3816.913004	0.036333	1.8631982 7	2.94E- 10	0.75595 7	8.33E- 06
<i>C2orf27A*</i>	ENSG000002871 51	2	13164799 0	13176740 4	1.71325 2	1.301972612- 2.25444941	0.000121	1.1616607 1	9.60E- 08	1.05624 6	6.00E- 13

<i>LINC01818</i>	ENSG00000230645	2	150169474	150356460	0.827751	0.305588794-2.242135036	0.7100196	-2.6000263	8.27E-12	-1.0926	0.000713
<i>LINC02612</i>	ENSG00000224048	2	150612381	150635818	3.100306	0.00148868-6456.654095	0.7716456	-1.3415325	0.000214	-1.32966	2.14E-06
<i>AC007277.1</i>	ENSG00000213981	2	170640374	170695374	0.544634	0.201945599-1.46884407	0.2299773	3.67814814	8.68E-16	1.371244	1.97E-06
<i>LINC01116</i>	ENSG00000163364	2	176629572	176637931	1.287684	0.992598625-1.670494074	0.0569074	3.10351045	3.25E-22	1.020994	1.77E-06
<i>AC005540.1</i>	ENSG00000235852	2	190880797	190882059	1.041239	0.010572109-102.5507637	0.9862324	1.25953823	0.000765	0.727555	0.000689
<i>AC097717.1</i>	ENSG00000232732	2	199867396	199911159	1675.204	0.003602542-778979770.4	0.2648625	1.5260865	3.11E-05	0.678658	0.000852
<i>AC098820.2</i>	ENSG00000235042	2	216385288	216412696	1.773667	0.934495067-3.366409528	0.0796458	1.47253112	3.66E-15	0.512669	6.03E-05
<i>AC016717.2</i>	ENSG00000273301	2	225698514	225703654	0.786779	0.415291176-1.490572718	0.4619844	4.96428288	1.88E-10	2.426174	1.01E-06
<i>AC009407.1*</i>	ENSG00000261829	2	231052040	231052637	1.027885	1.005407635-1.050865304	0.0147676	0.81960217	5.17E-05	-0.55738	0.000183
<i>AC104809.1</i>	ENSG00000223991	2	240981515	240986072	1.000135	0.942405771-1.061400655	0.9964482	-2.3499808	5.98E-06	-1.97353	2.48E-07
<i>AC006252.1*</i>	ENSG00000243224	3	52239258	52241097	4.890076	1.117829024-21.39221464	0.0350402	2.02873971	2.22E-16	0.539802	6.36E-05
<i>AC119424.1</i>	ENSG00000243384	3	58572744	58574319	1.107275	0.783949436-1.563949594	0.5630036	-1.7067544	4.64E-09	-0.77731	0.000498
<i>AC097634.1</i>	ENSG00000270562	3	71584943	71587409	4.016383	0.093514806-172.5003204	0.4686012	1.77009717	1.56E-09	0.653731	0.000107
<i>AC063938.1</i>	ENSG00000241754	3	102621061	102673986	1.148793	0.50679176-2.604076912	0.7397306	-1.661155	7.41E-10	-0.84039	9.56E-05
<i>LINC00488</i>	ENSG00000214381	3	109178143	109216965	0.707382	0.374322063-1.336786484	0.2863877	3.43714611	2.89E-10	1.976464	1.19E-07
<i>LINC00880</i>	ENSG00000243629	3	157081667	157128595	0.763723	0.411559751-1.417223338	0.3928147	1.90812631	1.07E-08	-0.90082	0.000142
<i>AC080013.3</i>	ENSG00000271778	3	158782547	158783124	3.165136	0.934137312-10.72442208	0.0642361	1.61565018	7.77E-09	0.532467	0.000749
<i>LINC00501*</i>	ENSG00000203645	3	177294442	177323418	5.639399	2.471580449-12.86740252	3.96E-05	3.1162168	3.46E-09	1.392693	1.45E-05
<i>LINC02028</i>	ENSG00000230102	3	194005259	194071025	1.345676	0.623256752-2.905452582	0.4496351	-0.7911291	0.000292	-0.931	1.30E-09
<i>LINC00887</i>	ENSG00000214145	3	194296191	194322871	1.403048	0.945561831-2.081876825	0.0925787	1.51439067	3.53E-06	1.15212	1.74E-07

Supplementary Material

<i>AC024560.3</i>	ENSG00000273308	3	197645669	197646017	1.521166	0.805179376-2.87382732	0.1962309	1.403065	1.25E-06	0.717006	1.23E-06
<i>AC092535.5</i>	ENSG00000273179	4	1167778	1168174	1.012822	0.990708629-1.035428583	0.2579865	1.91995596	9.94E-21	0.513973	0.000773
<i>LINC02600</i>	ENSG00000250986	4	3758748	3763390	0.92113	0.503490525-1.685194821	0.7897974	2.59798189	6.96E-12	1.371764	2.14E-07
<i>AC005699.1</i>	ENSG00000249631	4	11625714	11823906	4.203809	0.205167031-86.13473892	0.3513496	1.80297051	0.000404	1.239791	9.39E-05
<i>AC104066.3*</i>	ENSG00000260120	4	52680609	52692999	7.467815	1.969993365-28.30885859	0.0031043	1.30910446	2.76E-05	1.028498	1.70E-08
<i>DANCR*</i>	ENSG00000226950	4	52712404	52720351	1.020597	1.00247452-1.03904799	0.0257259	0.73015913	6.80E-05	0.646968	8.21E-07
<i>AC107396.1</i>	ENSG00000251049	4	57595940	57605872	0.666353	0.164421618-2.700536778	0.5696626	-	1.05E-09	-	6.00E-07
<i>LINC01094</i>	ENSG00000251442	4	78638780	78683185	1.529855	0.859363327-2.72347792	0.1484873	0.8270101	0.000736	0.584443	0.00079
<i>LINC01088</i>	ENSG00000249307	4	78939485	79309673	2.878004	0.235863256-35.11741074	0.4075466	1.62248655	5.87E-05	1.039377	3.30E-05
<i>AC114811.2</i>	ENSG00000260641	4	98658904	98664550	0.018146	5.06E-05-6.50198711	0.18152	2.72815237	4.28E-09	1.233649	2.16E-05
<i>AC083902.1</i>	ENSG00000248676	4	99594799	99625913	1.072107	0.797857416-1.440625435	0.6441641	-0.668058	0.000719	-0.5497	0.000199
<i>LINC02428</i>	ENSG00000248740	4	103255822	103454667	1.029471	0.998351991-1.061560915	0.0636467	-	2.67E-09	-	6.37E-10
<i>AC096564.1</i>	ENSG00000245293	4	107863473	107989679	1.109764	0.025090088-49.08618803	0.957041	-	4.68E-08	-	8.10E-16
<i>AC078850.1*</i>	ENSG00000248187	4	128567972	128570531	11.81261	1.628360623-85.69216461	0.0145974	2.39425337	2.80E-08	1.228353	2.84E-07
<i>LINC02362</i>	ENSG00000249096	4	184365180	184382416	0.938059	0.852377769-1.032352834	0.1907288	-	1.21E-05	-	1.82E-09
<i>LINC01093</i>	ENSG00000249173	4	184892858	184899553	1.010119	0.987283458-1.033481892	0.3881566	-	6.15E-20	-	5.67E-13
<i>LINC01018</i>	ENSG00000250056	5	6582136	6600288	0.9965	0.98289692-1.010291495	0.617112	-	7.75E-05	-	2.24E-05
<i>AC034229.4*</i>	ENSG00000272417	5	10203600	10204040	1.903967	1.242231532-2.918207686	0.0031214	2.70508594	6.16E-16	0.569602	0.000575
<i>AC010457.1</i>	ENSG00000251257	5	38460925	38468339	1.108759	0.901452452-1.363738607	0.3282813	2.45205361	5.44E-06	1.977763	1.20E-09

<i>LINC01948</i>	ENSG000002487 27	5	56451627	56481946	0.79774 4	0.308038129- 2.065965753	0.641623 3	1.7567679 3	1.52E- 07	0.81997 9	0.00010 8
<i>PART1</i>	ENSG000001529 31	5	60487713	60548813	0.86577 9	0.560608668- 1.33707047	0.515712	5.9544364 4	2.00E- 17	2.99731 1	2.11E- 11
<i>AC025176.1</i>	ENSG000002500 81	5	65486444	65487048	1.86057 3	0.966993278- 3.579891962	0.062963 9	2.8821391 2	6.60E- 13	0.70675 9	0.00090 8
<i>AC112206.2</i>	ENSG000002493 64	5	67379378	67806600	0.91730 7	0.776961625- 1.083003852	0.308306 6	- 1.5916661	7.63E- 06	- 1.11847	2.11E- 05
<i>AC010280.2</i>	ENSG000002488 84	5	68430427	68434481	1.06547 8	0.901983687- 1.258607974	0.455530 9	- 2.5940515	1.93E- 15	-1.6367	4.97E- 12
<i>LINC02200</i>	ENSG000002503 58	5	11262843 6	11264248 3	1.01300 3	0.90094584- 1.138998564	0.828985	4.288762	4.29E- 08	- 2.42972	2.75E- 06
<i>C5orf66</i>	ENSG000002241 86	5	13503328 0	13535821 9	0.81534 6	0.277373838- 2.396723999	0.710579 5	1.4813654 6	8.41E- 08	0.93585 6	2.11E- 06
<i>AC113382.1</i>	ENSG000002463 23	5	13803277 4	13803726 6	6.99435 1	0.000599472- 81606.66952	0.683933 2	1.3614598 9	0.00066 9	0.84369 8	0.00062 3
<i>SNHG4*</i>	ENSG000002813 98	5	13927410 2	13928489 9	1.58830 8	1.096582752- 2.300531942	0.014375 6	2.3993038 7	1.38E- 24	0.93048 8	1.90E- 09
<i>AC005618.1</i>	ENSG000002720 70	5	14132621 0	14132935 7	1.81309 2	0.453239666- 7.252902566	0.400223	1.9266624	2.60E- 11	0.84046 6	4.63E- 06
<i>AC011352.1</i> *	ENSG000002483 62	5	14788608 6	14788687 8	2.33487 9	1.029622575- 5.294813547	0.042372 4	2.3816830 2	6.91E- 06	1.17547	0.00057 4
<i>LINC02159*</i>	ENSG000002534 17	5	16093177 8	16093862 6	1.37755 6	1.008838605- 1.88103354	0.04387	4.3815023 9	2.86E- 14	1.51085 7	3.25E- 05
<i>LINC01863</i>	ENSG000002539 59	5	17364251 9	17365819 4	0.68275 5	0.297494715- 1.566931557	0.367930 8	- 2.3777444	2.63E- 09	- 1.96546	6.88E- 11
<i>AC139491.2</i>	ENSG000002485 96	5	17614308 5	17618515 5	1.18378 7	0.71779562- 1.952299122	0.508623 3	2.0852654 6	3.67E- 12	- 0.79869	0.00030 7
<i>AC139795.3</i>	ENSG000002724 59	5	17755482 4	17755536 4	1.13588 4	0.75036849- 1.719464812	0.546964 2	-0.716249	0.00031 1	- 0.55412	0.00012 3
<i>AC008610.1</i>	ENSG000002483 67	5	18029324 5	18029525 3	1.00065 5	0.8970263-1.116255087	0.990635 7	1.7763502 9	5.85E- 15	0.57338	0.00020 9
<i>AL590004.3</i>	ENSG000002606 04	6	3904920	3911979	1.01523 4	0.717208812- 1.437098768	0.932044 8	1.7402199 2	3.73E- 08	0.97703 1	9.93E- 06
<i>AL024498.1</i>	ENSG000002720 97	6	10743324	10747663	7.08742 7	0.684052637- 73.43239029	0.100663 1	2.0051960 5	1.71E- 15	0.62981 8	2.70E- 07
<i>AL008729.1</i>	ENSG000002150 22	6	13264861	13295586	2.01693 9	0.453376307- 8.972773735	0.356918 8	1.3392726 5	1.61E- 13	0.83181 8	2.25E- 13
<i>AL023583.1</i>	ENSG000002722 09	6	13825432	13826574	0.65757 5	0.314036407- 1.376923899	0.266261 1	1.1404735	0.00049 8	0.83021 7	0.00021 4

Supplementary Material

<i>LINC01108</i>	ENSG00000226673	6	14280127	14285454	0.395868	0.072896655-2.149776272	0.2830878	2.95801792	3.71E-15	0.857836	0.000644
<i>CASC15</i>	ENSG00000272168	6	21664185	22654455	1.99634	0.682481332-5.839534636	0.2068134	1.87365503	1.08E-10	1.70887	1.05E-18
<i>LINC00240</i>	ENSG00000224843	6	26956932	27059749	1.077736	0.606111268-1.91633923	0.7987748	0.75282463	0.000148	-0.79164	1.13E-08
<i>AL009179.1</i>	ENSG00000281706	6	27694035	27713352	40.70408	0.940894772-1760.90056	0.0538219	2.25013558	1.82E-06	1.350266	1.70E-06
<i>HCG18</i>	ENSG00000231074	6	30286690	30327382	0.94949	0.637945426-1.41317821	0.7983737	0.71428782	3.13E-11	0.566204	1.35E-14
<i>SNHG32</i>	ENSG00000204387	6	31834608	31839766	1.002898	0.99523323-1.010621428	0.459753	1.19721687	1.67E-20	0.50976	7.16E-08
<i>Z97832.2</i>	ENSG00000272374	6	35220370	35224630	5.039927	0.526174331-48.2746152	0.160626	1.63258991	2.79E-17	0.750946	9.13E-11
<i>AL033384.2</i>	ENSG00000271218	6	53918974	53920788	2.301459	0.652928641-8.112238576	0.1947092	2.41325036	1.77E-09	0.80506	0.000156
<i>AC019205.1</i>	ENSG00000229852	6	73263212	73301789	3.859058	0.369431553-40.31147823	0.2592745	0.90866176	0.00047	0.672289	0.000241
<i>AL359715.3</i>	ENSG00000272129	6	80355424	80356859	1.51227	0.966713537-2.365706453	0.0700353	-1.5681706	1.13E-24	-0.55426	1.49E-06
<i>Z99289.1</i>	ENSG00000237234	6	112154765	112166476	1.178415	0.076604046-18.12778342	0.9062876	-1.6415336	1.49E-07	-0.97998	3.85E-05
<i>LINC01625</i>	ENSG00000238099	6	139435636	139474658	0.783295	0.430996908-1.42356266	0.4229486	-1.5500433	8.71E-05	-1.40102	1.84E-06
<i>LINC00574</i>	ENSG00000231690	6	169790057	169802873	1.381434	0.936307167-2.038176828	0.1034576	-0.7898913	4.63E-05	-0.58642	4.60E-05
<i>AL596442.2</i>	ENSG00000273100	6	170178681	170179660	1.068372	0.80371523-1.420178784	0.64883	-0.8100756	0.000539	-0.66697	2.57E-05
<i>AC093627.7</i>	ENSG00000261795	7	161765	164972	0.035375	0.00021383-5.852108493	0.1998045	1.50879373	5.54E-06	0.736516	0.000676
<i>AC091729.2</i>	ENSG00000226291	7	1080863	1082178	0.995047	0.976673482-1.013765795	0.6015411	-2.6408224	3.45E-07	-1.46728	3.02E-05
<i>AC102953.2*</i>	ENSG00000273230	7	1464497	1467522	1.533676	1.056802186-2.225734075	0.0244033	2.04986731	6.42E-34	0.643415	1.56E-08
<i>AC092171.1</i>	ENSG00000188365	7	5419846	5423122	6.282215	0.085036615-464.1085914	0.4024927	1.33177888	8.68E-05	0.582562	0.000833
<i>AC004160.1</i>	ENSG00000230333	7	11180902	11520175	1.051973	0.366275139-3.021354504	0.9250093	-2.3517974	5.77E-12	-1.55033	7.09E-10

<i>AC004160.2</i>	ENSG000002304 35	7	11406955	11414078	1.03592 5	0.633563256- 1.693818411	0.888113 3	-2.039784	1.58E- 06	- 1.82905	2.67E- 08
<i>AC005165.1</i> *	ENSG000002235 61	7	25593304	25751032	0.28244 1	0.079279861- 1.006219077	0.051128 5	2.6763986 2	7.25E- 09	1.35282 2	1.97E- 05
<i>AC004870.2</i>	ENSG000002238 29	7	46969644	47027481	1.16704 5	0.917394869- 1.484631523	0.208430 4	4.7501719 5	4.08E- 07	2.83209 7	1.64E- 06
<i>AC006329.1</i>	ENSG000002324 45	7	10130827 0	10131480 0	1.04366 5	0.986189096- 1.104490771	0.139201 5	- 1.3262956	5.74E- 06	- 1.24806	3.08E- 09
<i>AC073111.1</i>	ENSG000002393 77	7	15037985 4	15038388 5	1.80040 3	0.352213195- 9.203093659	0.479951 9	2.5610244 6	2.48E- 13	0.64691 3	5.77E- 05
<i>LINC02153</i>	ENSG000002531 99	8	20972021	20995119	167.582 7	0.223938738- 125409.1419	0.129319 4	- 2.5538422	1.59E- 05	-1.9056	0.00025 1
<i>AC124067.2</i>	ENSG000002534 14	8	37516399	37521447	1.04965 3	0.726762202- 1.515999818	0.796125	2.2463812 5	1.97E- 09	0.75631 5	0.00084 8
<i>AC138356.1</i>	ENSG000001831 54	8	37734761	37737426	0.38407 3	0.133342959- 1.106258569	0.076249 7	- 2.3248393	3.49E- 22	- 0.87306	1.85E- 06
<i>AC079089.1</i>	ENSG000002465 28	8	69834111	69854971	1.39290 5	0.048432242- 40.05976106	0.846671 8	1.9672990 5	3.20E- 05	0.97521 2	0.00068 8
<i>AC011632.1</i>	ENSG000002537 06	8	74798784	74866939	1.24540 2	0.695882348- 2.228864178	0.459898 1	5.6409668 5	1.61E- 14	1.71727 2	0.00035 7
<i>AC009902.3</i>	ENSG000002724 25	8	81275399	81277570	172.323 3	0.224353399- 132359.6395	0.128743 8	1.6890355 8	2.73E- 05	0.93713 2	2.33E- 05
<i>AC009902.2</i> *	ENSG000002540 27	8	81279871	81281446	9.61683 2	2.166638544- 42.68522305	0.002912 9	1.7885923 7	1.19E- 05	1.07092 6	1.75E- 06
<i>CASC8*</i>	ENSG000002462 28	8	12728981 7	12748213 9	1.55418 4	1.232891832- 1.959204777	0.000190 1	2.9916374 7	7.23E- 10	1.22197 3	7.37E- 05
<i>AC105219.3</i>	ENSG000002545 74	8	14370900 7	14371358 4	2.33E- 05	6.31E-19-861200214.2	0.503372 5	2.0709787	3.78E- 06	1.23158 4	4.93E- 06
<i>AL354989.1</i> *	ENSG000002283 52	9	34084332	34096225	9.48568	1.116739452- 80.57218029	0.039291 8	1.0792253 6	0.00040 6	0.73597 7	9.15E- 06
<i>LINC01508</i>	ENSG000002311 07	9	90300885	90433566	1.18328 6	0.971766973- 1.440845238	0.093946 8	2.9282241 5	0.00035 2	2.62000 4	1.51E- 06
<i>AL161729.4</i> *	ENSG000002716 59	9	95514045	95514520	2.56309 3	1.243760795- 5.281919977	0.010733 7	2.2243921 4	6.98E- 09	0.70055 2	0.00065 9
<i>FAM225B*</i>	ENSG000002256 84	9	11310211 7	11311154 3	7935.61	9.418916428- 6685896.614	0.008988 6	1.4456101	0.00023 9	0.88813	0.00020 9
<i>MIR600HG</i>	ENSG000002369 01	9	12310949 4	12311547 7	1.45888 6	0.909719675- 2.339565888	0.117043 3	1.4024785 5	4.27E- 16	0.56274 9	5.13E- 06
<i>MIR181A2H</i> <i>G</i>	ENSG000002240 20	9	12465846 7	12469863 1	0.98580 6	0.667899508- 1.455029573	0.942626 8	1.2570878 3	3.21E- 05	0.88771	7.35E- 06

Supplementary Material

<i>AL590708.1</i>	ENSG00000232850	9	128128529	128130628	0.894201	0.13934903-5.738083122	0.9061464	3.61816328	2.39E-24	0.619374	0.000451
<i>AL391056.1</i>	ENSG00000227619	9	129575117	129584556	1.009393	0.969192443-1.051261474	0.6520756	3.71488164	2.50E-19	1.035387	0.000447
<i>AL355574.1</i>	ENSG00000238058	9	135907812	135916126	1.023471	0.789569081-1.326664081	0.860886	1.35520951	4.71E-13	0.556164	1.50E-06
<i>SNHG7*</i>	ENSG00000233016	9	136721366	136728184	1.031789	1.004086404-1.060255492	0.0242183	1.56275787	7.07E-23	0.672029	3.59E-09
<i>AL355987.4*</i>	ENSG00000273066	9	136799223	136810042	1.215544	1.020356226-1.448069132	0.0288442	2.22764707	1.33E-16	1.454813	5.99E-15
<i>AL359878.1*</i>	ENSG00000205740	10	971146	988341	149.7894	3.803908753-5898.371007	0.007521	2.4687884	2.88E-18	0.815126	2.54E-08
<i>LINC00839*</i>	ENSG00000185904	10	42475480	42495337	1.19592	1.027893158-1.391414827	0.0205527	1.23782867	3.33E-06	1.48671	2.00E-15
<i>AL353801.1</i>	ENSG00000223462	10	44937508	44955725	1.111532	0.56214931-2.197822627	0.761127	1.93094349	1.09E-06	0.795232	0.000225
<i>AL356056.2</i>	ENSG00000231187	10	46580708	46598150	0.967178	0.601175224-1.556008553	0.890589	1.18710449	7.31E-06	0.827882	3.10E-06
<i>LINC02640</i>	ENSG00000233590	10	68233251	68242379	0.914566	0.617229577-1.355136298	0.6562111	-1.0149771	0.000512	-1.24207	2.73E-09
<i>LINC02636*</i>	ENSG00000224222	10	69994276	70019496	1.698164	1.06989053-2.695379068	0.0246677	2.24233862	6.10E-05	1.469202	1.73E-05
<i>AC016394.2*</i>	ENSG00000272599	10	73124573	73125532	1.558133	1.153255186-2.105153978	0.0038679	1.7713731	7.53E-30	0.511511	1.76E-07
<i>LINC01374</i>	ENSG00000280560	10	89853595	90225443	0.705973	0.084759889-5.880114561	0.7475042	1.51878373	0.000643	1.009817	9.10E-05
<i>AL133215.2*</i>	ENSG00000273162	10	101060029	101061005	3.33686	1.770642583-6.288469499	0.0001937	2.65434429	5.50E-17	0.758127	8.74E-06
<i>TLX1NB</i>	ENSG00000236311	10	101089321	101131126	2.624255	0.196557885-35.03656867	0.4656018	2.86269567	2.93E-09	1.072647	0.000187
<i>AL121929.3</i>	ENSG00000287419	10	103573157	103583687	0.466464	0.104069034-2.09080724	0.3190898	1.64757471	6.98E-06	0.93454	5.88E-05
<i>AL158212.3</i>	ENSG00000260917	10	112823490	112827726	1.113451	0.658491224-1.882747749	0.6884296	1.49928659	8.12E-23	0.541992	2.10E-07
<i>AL158166.1*</i>	ENSG00000227076	10	127934698	127936167	6.169867	1.456329662-26.13917543	0.0135003	1.25053313	0.000768	1.270017	1.65E-09
<i>AL451069.3*</i>	ENSG00000234311	10	132433733	132441484	1.115362	1.026797971-1.211565815	0.0096971	3.67085551	9.32E-09	3.653368	1.47E-23

<i>AP006285.1</i>	ENSG000002314 87	11	1662584	1663343	0.9657	0.749153603- 1.244841093	0.787613 4	- 1.6228157	8.57E- 06	- 1.69138	1.72E- 10
<i>FAM99A</i>	ENSG000002058 66	11	1665597	1667856	0.98011 2	0.954945704- 1.005942184	0.130135 8	- 1.9163158	6.92E- 07	- 1.70024	1.04E- 09
<i>FAM99B</i>	ENSG000002058 65	11	1683269	1685629	0.98660 1	0.941580037- 1.033774618	0.571346 1	- 1.6945256	3.64E- 06	- 1.58802	1.94E- 09
<i>KCNQ1OT1</i>	ENSG000002698 21	11	2608328	2699994	0.67294 9	0.003084864- 146.800923	0.885376	1.2220132 8	1.94E- 10	0.60334 5	1.56E- 05
<i>LINC02709</i>	ENSG000002455 22	11	9754770	9759533	1.37335	0.255495197- 7.382095064	0.711587 8	1.4664747 1	8.06E- 12	0.96036 3	2.78E- 12
<i>LINC00958*</i>	ENSG000002513 81	11	12961541	12989597	1.13861 8	1.00450195- 1.290641218	0.042334 9	3.1647766 2	2.36E- 06	1.53909 4	0.00056 6
<i>AC124798.1</i>	ENSG000002601 96	11	17380649	17383531	1.03672 8	0.787984621- 1.363992496	0.796649 1	1.0649885 8	0.00019 8	0.73380 1	0.00052 1
<i>AC004923.4</i>	ENSG000002553 06	11	68024809	68030461	1.59813 9	0.595643108- 4.287882583	0.351824 5	1.4833925 3	4.79E- 10	0.67603 1	7.68E- 07
<i>AP002761.3</i>	ENSG000002570 38	11	73307235	73309361	1.06025 4	0.645045652- 1.742726273	0.817501 8	- 0.8475016	0.00030 5	0.77865 3	7.31E- 06
<i>AP001527.2</i>	ENSG000002774 59	11	10210982 7	10211045 7	1.48456 1	0.691719268- 3.186148569	0.310562 1	1.0599906 6	1.08E- 05	0.82830 1	5.13E- 09
<i>COLCA1</i>	ENSG000001961 67	11	11129078 7	11130549 8	0.92676 3	0.643748747- 1.334200995	0.682471 7	1.8097954 6	4.27E- 13	0.66722 3	0.00044 3
<i>AP000757.2</i>	ENSG000002548 44	11	11781844 3	11782199 2	0.92091 1	0.768463781- 1.103599676	0.372212 1	2.5343361 5	4.36E- 06	2.18040 6	1.86E- 08
<i>AP000866.2</i>	ENSG000002500 73	11	12475912 9	12476611 9	1.80696 7	0.733627765- 4.450660407	0.198285 4	1.1384025	3.09E- 08	0.56296 2	2.41E- 05
<i>AP000842.3</i>	ENSG000002602 09	11	12587303 1	12587452 8	27.0137 2	0.357952749- 2038.652657	0.135108 5	2.2021726 7	9.99E- 07	0.96343 2	0.00041 1
<i>GSEC</i>	ENSG000002808 32	11	12634088 9	12635558 7	1.46250 2	0.831616859- 2.57199346	0.186896 9	1.3232232 7	2.27E- 15	0.50047 3	3.84E- 05
<i>LINC00942</i>	ENSG000002496 28	12	1500525	1504424	1.00712 2	0.979718445- 1.035292555	0.614108 8	6.1418940 6	1.21E- 24	2.44453 2	2.21E- 10
<i>LINC01559</i>	ENSG000001808 61	12	13371089	13387167	0.87030 2	0.526529299- 1.438525443	0.587962 5	2.2046173 2	0.00021 7	1.99863 7	5.10E- 07
<i>AC008250.2</i>	ENSG000002755 67	12	21828360	21828564	0.69742 3	0.441260814- 1.102292648	0.122840 1	- 1.2825603	2.23E- 06	- 0.79521	0.00015 2
<i>LINC00941</i>	ENSG000002358 84	12	30755167	30802602	1.30555 7	0.668113731- 2.55118271	0.435353 7	2.5541883	5.25E- 12	1.72991 2	3.25E- 12
<i>AC048344.4</i>	ENSG000002773 42	12	32109076	32109602	4.12412 4	0.691454361- 24.59800267	0.119940 1	1.4402755 6	0.00026 8	0.87131 7	0.00011 8

Supplementary Material

<i>AC026356.2</i>	ENSG000002761 15	12	32352349	32354144	3.74996 4	0.348190734- 40.38656697	0.275728 7	1.4015662 2	1.91E- 08	0.70197 7	1.52E- 06
<i>LINC02156*</i>	ENSG000002579 06	12	47377638	47420192	1.62393 1	1.048854076- 2.514317939	0.029718 8	- 1.7391067	2.00E- 06	- 1.07529	0.00016 2
<i>AC125611.4</i> *	ENSG000002583 34	12	49292631	49324576	7379140 8	10.43215663- 5.2196E+14	0.024362 5	1.6241763 3	0.00012 4	0.92717 2	0.00026 6
<i>LINC02381</i>	ENSG000002507 42	12	54126082	54147485	1.01380 1	0.96890885-1.06077259	0.553086 9	1.1436359 4	0.00012 2	1.50152 2	1.44E- 12
<i>AC078778.1</i>	ENSG000002583 44	12	54276631	54345083	3.66454 4	0.174861795- 76.79712074	0.402801 2	1.4062483 7	0.00026	0.72344 9	0.00087
<i>LINC02421</i>	ENSG000002559 70	12	67709047	67729475	35.5391 3	0.489085568- 2582.431666	0.102492 6	2.0509473 6	1.84E- 06	0.86429 5	0.00046 2
<i>AC020656.2</i>	ENSG000002749 79	12	69326574	69331882	1.16385 6	0.670828377- 2.019234281	0.589357 1	1.4666032 3	1.11E- 06	0.84889 3	0.00012
<i>AC083809.1</i>	ENSG000002772 47	12	70570969	70571440	0.99781 1	0.985592735- 1.010181046	0.727406 4	3.0209950 9	2.87E- 08	2.30557 1	1.61E- 09
<i>LINC01619</i>	ENSG000002572 42	12	91984976	92142914	0.46166 8	0.109466981- 1.947049095	0.292541 4	0.8967048 5	0.00049 9	0.62934 5	0.00074 7
<i>LINC02413</i>	ENSG000002573 45	12	92999218	93019820	0.66943 1	0.365519547- 1.226029001	0.193631	4.1131424 6	1.70E- 09	3.55302 9	3.46E- 17
<i>AC007298.2</i>	ENSG000002578 78	12	95996521	96011489	1.04329 9	0.782229401- 1.391500413	0.772985 8	- 1.6686035	4.70E- 08	- 1.00553	1.29E- 05
<i>AC089983.1</i>	ENSG000002577 32	12	10426231 4	10428072 2	0.92871	0.346021299- 2.492626836	0.883272 5	2.9090700 4	5.03E- 08	1.10668 7	0.00085 4
<i>AC026368.1</i>	ENSG000002778 40	12	11700246 3	11700315 2	1.17055 7	0.737029711- 1.859089981	0.504639 3	2.0672981 1	2.15E- 08	1.56456 6	2.25E- 13
<i>AC069234.5</i>	ENSG000002774 23	12	12070386 7	12070428 2	1.74433 6	0.740120422- 4.111100344	0.203386 9	1.2812622 9	7.66E- 06	0.6732	5.49E- 05
<i>AC156455.1</i>	ENSG000002565 46	12	12206330 6	12206861 6	0.68986	0.253758509- 1.87543125	0.466862 9	0.8597889	0.00049 5	0.64938 9	0.00025 6
<i>AC145423.2</i>	ENSG000002744 27	12	12351527 5	12351551 3	1.1503	0.978249259- 1.352610262	0.090278 6	1.6943989 8	1.22E- 08	0.62782 9	0.00048 4
<i>AC135586.2</i>	ENSG000002566 32	12	13268804 9	13271491 2	0.59044 7	0.189306745- 1.841603615	0.363973 3	- 1.1399306	9.69E- 10	- 0.69941	6.63E- 07
<i>ALI161772.1</i>	ENSG000002782 91	13	20699307	20703718	1.29353 2	0.943130812- 1.774116748	0.110326 8	1.9112202 9	2.72E- 08	0.88213 9	7.17E- 05
<i>LINC00327</i>	ENSG000002329 77	13	23465776	23487712	0.00210 1	2.59E-06-1.705584496	0.071268 9	1.4624138 5	0.00032	1.12108 2	9.29E- 06

<i>AL161891.1</i>	ENSG00000276672	13	33846190	33850825	0.930539	0.122570429-7.064536009	0.944506	1.18029085	2.89E-10	0.551651	3.41E-05
<i>AL356740.3</i>	ENSG00000269376	13	113009671	113010319	0.842345	0.439807208-1.613310118	0.6048471	2.40008681	7.63E-05	1.341036	0.000625
<i>AL442125.1*</i>	ENSG00000276248	13	113527260	113530621	30.38451	1.147030882-804.876473	0.04115	1.07840104	1.41E-06	0.513358	0.000514
<i>AL356019.2</i>	ENSG00000258768	14	20260480	20264308	2.016009	0.547361931-7.42523774	0.2918824	1.03093847	5.55E-08	0.683662	4.34E-08
<i>AL161668.4</i>	ENSG00000258604	14	21024172	21029271	0.999514	0.924415979-1.080711789	0.9902574	-1.9174954	3.03E-13	-0.78438	8.96E-05
<i>AL121790.1</i>	ENSG00000258414	14	37564047	37579125	5.262302	0.880392549-31.45395258	0.0687101	-1.336481	2.96E-05	-1.07683	7.15E-06
<i>AL163953.1</i>	ENSG00000225680	14	53599832	53614026	0.809417	0.560204369-1.169494026	0.2601251	3.80749967	1.06E-17	1.27787	1.13E-06
<i>AL359232.1</i>	ENSG00000258561	14	66212810	66509394	2.497994	0.290768284-21.46030284	0.404117	-0.8077796	0.000104	-0.68539	8.07E-06
<i>LINC01269</i>	ENSG00000258689	14	70698698	70712153	1.001789	0.890794206-1.126614106	0.9761996	3.15400984	2.86E-11	1.006475	0.000346
<i>AC005225.2</i>	ENSG00000258603	14	73555115	73633941	1.194652	0.890522556-1.602648162	0.2354334	-0.7212067	0.000101	-0.54942	6.21E-05
<i>AF111167.2</i>	ENSG00000259319	14	75423683	75427741	1.299169	0.633018163-2.66633834	0.4755549	-0.7772317	0.000201	-0.57689	0.000238
<i>AL133279.1*</i>	ENSG00000258538	14	88175391	88180198	6.743691	1.318714991-34.48612528	0.0218925	-1.1452646	0.000301	-1.30567	3.38E-08
<i>AL137230.2</i>	ENSG00000259053	14	89412312	89954659	1.856886	0.657302145-5.245723674	0.2427908	1.40054534	1.28E-08	-0.70451	2.45E-05
<i>LINC02321</i>	ENSG00000258884	14	90820064	90828199	1.136368	0.952569606-1.355630612	0.1555635	0.95416931	9.07E-05	-0.62995	0.000261
<i>AL133467.1</i>	ENSG00000258572	14	95516136	95517911	0.999698	0.545858114-1.830873156	0.9992205	-0.931784	7.87E-05	-0.65378	0.000203
<i>AL355102.4</i>	ENSG00000258793	14	96259411	96268624	0.995061	0.943789318-1.049117334	0.8544411	2.04279622	9.28E-10	0.99145	6.72E-05
<i>MEG3</i>	ENSG00000214548	14	100779410	100861031	1.007153	0.976852758-1.038393422	0.6474352	1.26871427	0.00024	1.143751	3.83E-06
<i>AL161669.3*</i>	ENSG00000278071	14	103208100	103208876	1.250841	1.113895204-1.40462346	0.0001548	1.37509844	3.95E-11	-0.52927	0.000516
<i>AC026495.1</i>	ENSG00000258654	15	20344736	20359166	2.616509	0.918647841-7.452386834	0.071691	2.10808558	1.22E-06	-1.04407	0.000174
<i>SNHG14</i>	ENSG00000224078	15	24978583	25420336	1.063529	0.835984593-1.353007676	0.6160511	0.82582162	0.000715	0.970592	2.22E-08

Supplementary Material

<i>AC124312.3</i>	ENSG000002610 69	15	25087661	25088896	1.21694 6	0.599597236- 2.469921598	0.586672 4	1.2993365 2	0.00049 5	1.15505	3.96E- 06
<i>AC091057.1</i>	ENSG000001879 51	15	30658717	30772993	1.88909 4	0.797320259- 4.475839341	0.148367 9	2.1163950 4	4.72E- 32	0.74798 5	7.61E- 10
<i>AC078909.2</i>	ENSG000002744 44	15	37109587	37109984	0.88705 1	0.639251476- 1.230906384	0.473344	3.1716091 8	7.34E- 16	0.79980 9	0.00010 1
<i>AC020658.4</i> *	ENSG000002737 86	15	40226386	40227069	17.6358 5	1.784120013- 174.3287218	0.014079 2	2.5027590 3	6.37E- 09	0.99075 3	6.43E- 05
<i>AC020661.1</i>	ENSG000002511 61	15	40906811	40910337	1.99763 6	0.446962568- 8.928151412	0.365034 3	1.1643713	1.77E- 06	0.71568 4	8.41E- 07
<i>AC025580.1</i> *	ENSG000002593 42	15	45430652	45441808	1.52232 3	1.055371992- 2.195877158	0.024557 3	2.1209624 8	2.21E- 05	1.74097	6.08E- 08
<i>AC104574.2</i>	ENSG000002596 16	15	61298791	61635449	2.67002 8	0.683187165- 10.43498898	0.157907 5	1.8175672 4	0.00039 3	- 1.15764	0.00017 3
<i>AC103740.1</i>	ENSG000002593 70	15	62827675	62884034	1.24623 7	0.731440212- 2.123355392	0.418133 2	- 1.3783106	2.01E- 07	- 0.82876	3.08E- 05
<i>AC026992.2</i>	ENSG000002616 34	15	69278328	69298795	2.67331	0.409607699- 17.44739337	0.304233 4	2.3661216 9	1.03E- 07	1.26009 1	1.37E- 05
<i>LINC02259</i>	ENSG000002597 83	15	72608481	72636962	0.45178 1	0.110955511- 1.839529874	0.267370 7	- 0.9021792	0.00015 6	- 0.75711	2.03E- 05
<i>LINC01579</i>	ENSG000002587 54	15	93718542	94070898	6.22994 1	0.010542927- 3681.345853	0.574223 2	2.8971066 9	2.16E- 05	1.64958 2	0.00021 3
<i>Z92544.1</i>	ENSG000002603 94	16	678504	679777	1.11444 7	0.205715089- 6.03743751	0.899972 7	0.8873756 8	1.58E- 06	0.74845 1	3.94E- 11
<i>AL031705.1</i>	ENSG000002606 46	16	1512979	1514675	2.98495 8	0.423855728- 21.0212492	0.272170 9	1.8794945 3	2.11E- 07	0.67138 7	0.00028
<i>AL031722.1</i>	ENSG000002605 41	16	1841020	1843547	0.77076 6	0.579646452- 1.024900006	0.073325 1	- 1.0688748	3.76E- 07	- 0.71215	6.56E- 06
<i>AC012676.1</i> *	ENSG000002627 12	16	4335870	4337818	1.93953	1.010689126- 3.721993596	0.046378 2	1.4021383 4	1.18E- 12	0.60529	8.07E- 06
<i>AC009093.1</i>	ENSG000002598 07	16	29215385	29221040	1.71960 8	0.27185036- 10.87749743	0.564615 3	1.1170625	3.05E- 05	0.63773 6	0.00021
<i>AC009093.5</i>	ENSG000002735 82	16	29225594	29226348	1.01166	0.828159702- 1.235818877	0.909616 9	- 1.3815593	6.39E- 05	- 1.34534	7.00E- 08
<i>AC135048.1</i>	ENSG000002614 87	16	30948386	30956511	1.07143 8	0.694042771- 1.654045869	0.755456 2	- 0.7853643	0.00018 7	- 0.61066	9.07E- 05
<i>AC007344.1</i>	ENSG000002608 50	16	51354456	51525157	2.91832 1	0.700572907- 12.1566169	0.141249 6	- 1.5227419	0.00027 6	- 1.36633	3.48E- 05

AC040168.1	ENSG00000246379	16	55984009	56191118	0.312688	0.018605631-5.25507556	0.4193794	-1.3331888	0.000594	-1.20888	4.33E-05
AC026461.2	ENSG00000259923	16	56648881	56652636	0.956705	0.733521364-1.247794578	0.7439947	-3.0285505	1.68E-11	-1.90587	1.17E-07
AC027682.6	ENSG00000276075	16	67517862	67528675	1.048944	0.994186836-1.106717829	0.0806661	-0.6849061	0.000704	-0.65577	6.21E-06
LINC01572	ENSG00000261008	16	72236281	72665014	2.359065	0.04111062-135.3710139	0.677867	2.20792081	1.04E-14	0.585365	0.000882
AC009159.3	ENSG00000278058	16	79605802	79606605	0.965878	0.750918437-1.242372238	0.7869289	-1.2816562	3.34E-13	-0.57261	1.41E-05
AC026469.1	ENSG00000275088	16	85142696	85146001	1.299413	0.565770686-2.984378878	0.5369835	-1.2439741	4.15E-05	-0.90855	1.99E-05
LINC02188	ENSG00000261175	16	86710122	86742083	1.128169	0.810120708-1.571080385	0.4753961	2.75062146	1.85E-09	2.158765	9.31E-14
AC134312.6	ENSG00000261816	16	88191486	88193667	2.454265	0.482379859-12.48687706	0.2794009	-1.4082742	0.000206	-1.10797	0.000207
AC092384.2	ENSG00000259881	16	88881038	88887136	1.045367	0.728734481-1.49957464	0.8095481	-2.3076925	2.33E-09	-1.4274	8.44E-07
AC137932.1	ENSG00000260279	16	89296128	89298317	0.921493	0.666785823-1.273495026	0.6203761	0.92358005	5.88E-06	-0.52307	0.000283
AC129507.2	ENSG00000262294	17	352638	357581	1.128267	0.938623299-1.356227845	0.1986718	-1.2388348	1.19E-08	-0.77273	1.39E-06
AC099684.1	ENSG00000228133	17	2017716	2020706	1.099259	0.7742039-1.560791457	0.5967268	-1.0805397	6.90E-05	-0.83943	2.54E-05
AC027796.4	ENSG00000262903	17	3655621	3658092	0.95334	0.708826409-1.282199549	0.7519909	1.80058327	4.04E-15	0.590546	0.000146
AC087742.1*	ENSG00000274363	17	4267691	4268430	4.012918	1.066637166-15.0974613	0.0398414	1.83554718	3.10E-08	0.621557	0.000426
AC015908.3	ENSG00000264016	17	10741257	10769089	0.966821	0.78183101-1.195582161	0.7555002	-1.3734152	1.24E-13	-0.86558	7.79E-11
AC005224.2	ENSG00000266378	17	14327335	14329474	3.35267	0.170014747-66.11423124	0.4264796	-1.2863771	1.95E-05	-0.79845	0.000551
AC093484.4	ENSG00000266651	17	16440479	16440952	1.57454	0.921221617-2.691182956	0.0969288	1.00831066	4.74E-05	0.539502	0.000717
AC005722.4	ENSG00000264785	17	19737682	19738542	0.949212	0.764930528-1.17788925	0.6360027	3.87357108	4.76E-08	1.690462	0.000158
AC005730.2	ENSG00000261033	17	20008051	20009234	0.698059	0.26701214-1.824958302	0.4634992	1.89478792	0.000637	1.249122	0.00023
AC006449.2	ENSG00000275532	17	38703480	38706261	0.982839	0.378092922-2.554853786	0.9716694	1.115684	1.28E-06	0.556458	3.28E-05

Supplementary Material

<i>AC060780.1</i>	ENSG00000267002	17	43148368	43171037	0.981741	0.889934378-1.083018426	0.7129671	0.71739411	9.38E-06	0.587314	1.09E-07
<i>AC091133.3</i>	ENSG00000250838	17	48995266	48997492	1.284977	0.770155292-2.143939222	0.3370402	3.04636409	0.000924	2.145606	0.000277
<i>AC011921.1</i>	ENSG00000259349	17	60526293	60550798	2.236211	0.787725515-6.348202519	0.1305967	2.36305006	8.24E-18	0.62128	1.87E-06
<i>LINC01993</i>	ENSG00000204277	17	78261349	78278492	0.762954	0.112380092-5.179729572	0.7818833	1.47465246	0.000529	1.190879	4.43E-05
<i>LINC01978</i>	ENSG00000262188	17	79919357	79925999	0.586805	0.15792652-2.180382359	0.4260394	1.11230313	0.000203	1.019068	2.16E-07
<i>AC116025.2*</i>	ENSG00000262172	17	79991944	79992841	2.414076	1.446456208-4.028994367	0.0007451	3.3053428	2.58E-19	0.71116	6.52E-05
<i>AC132872.2</i>	ENSG00000264548	17	82214227	82217352	2.77092	0.152215943-50.44147842	0.4911858	2.61614702	5.64E-19	0.574769	0.000203
<i>AP002478.1</i>	ENSG00000266401	18	3653030	3656282	1.174257	0.932000208-1.479484572	0.1730077	4.44834053	5.42E-12	1.903118	3.12E-06
<i>AC006557.1*</i>	ENSG00000267150	18	14089935	14091019	23.4933	1.033813445-533.8827443	0.0476102	2.12627524	1.41E-07	1.103503	4.09E-07
<i>AC023983.2</i>	ENSG00000273321	18	24402153	24402714	0.809306	0.214969062-3.046839901	0.7544259	1.67719	0.000377	0.964242	0.000781
<i>PCAT18</i>	ENSG00000265369	18	26687621	26703638	3.915832	0.054647892-280.5916811	0.5311287	-1.535594	9.81E-06	-0.92732	0.000801
<i>AC011815.1</i>	ENSG00000268573	18	35280867	35290201	0.993159	0.33477316-2.946369535	0.990129	1.2025434	5.02E-10	0.627031	2.85E-06
<i>LINC01901</i>	ENSG00000267413	18	39841174	39924840	1.696693	0.570654783-5.044674007	0.3416338	3.7091014	6.79E-09	1.446907	0.000369
<i>AC090227.3</i>	ENSG00000267674	18	49739823	49742063	1.019597	0.367846572-2.8261166	0.970238	-2.6166873	2.92E-09	-1.26915	0.00045
<i>AC090409.1</i>	ENSG00000267279	18	61585746	61607006	1.545869	0.787262208-3.035469113	0.2057989	1.48575096	2.89E-09	0.580217	0.000173
<i>AC036176.1</i>	ENSG00000267390	18	63367328	63381629	1.014034	0.91211801-1.12733817	0.796499	-0.9415269	4.49E-08	-0.7047	1.22E-08
<i>AC023090.1</i>	ENSG00000267015	18	79340258	79343972	1.064962	0.983861208-1.152748158	0.1193832	5.12578248	3.79E-17	1.849857	5.25E-07
<i>RBFADN*</i>	ENSG00000261126	18	80046900	80095482	2.829557	1.179592987-6.787420442	0.0198084	0.90206553	4.60E-07	0.515232	4.49E-05
<i>AC006273.1</i>	ENSG00000272473	19	781002	781862	0.977235	0.838222365-1.13930212	0.7686508	1.2934012	5.72E-05	1.119675	8.51E-08

LINC01836	ENSG00000267530	19	782755	786092	1.011853	0.882512459-1.160148807	0.8659069	1.16062096	3.36E-05	0.957921	1.55E-06
LINC01775	ENSG00000267201	19	2458935	2462185	3.228288	0.560640788-18.58916756	0.1894891	2.38656083	3.32E-10	0.68266	0.000923
AC006538.1*	ENSG00000261342	19	2727743	2729327	1.913743	1.144497749-3.200015373	0.0133417	2.388644	1.52E-18	0.667762	0.000206
AC010336.2	ENSG00000260500	19	7918652	7919157	0.847802	0.598016524-1.201920443	0.3538428	-1.1778809	5.17E-06	-0.97959	2.21E-07
AC011447.3	ENSG00000267383	19	20122569	20321305	3.475246	0.742837592-16.25837833	0.1135722	1.52168262	3.77E-08	0.903128	4.13E-07
AC010615.2*	ENSG00000268119	19	21444241	21463908	1.769526	1.061586071-2.94957148	0.0285812	2.46171478	4.49E-14	0.960384	3.19E-05
AC006504.1	ENSG00000261770	19	27757184	27760849	6.278483	0.467432844-84.331576	0.1657007	0.80812082	0.000126	0.70049	2.37E-07
AC006504.7*	ENSG00000281468	19	27802838	27803472	1.365759	1.06328862-1.754271444	0.0146706	1.146101	5.12E-10	0.620265	3.62E-07
AC007773.1	ENSG00000267213	19	32390050	32405560	1.030051	0.90950929-1.166569332	0.6410198	1.72150138	9.34E-15	0.505729	0.000533
AC020907.4	ENSG00000271032	19	35014961	35025335	1.326602	0.993434229-1.771503494	0.0554516	1.70683218	4.22E-10	0.67594	4.46E-05
AC092296.2	ENSG00000267053	19	36304564	36321274	4.333985	0.675250092-27.81699301	0.1221043	2.49501786	7.70E-12	0.973084	4.12E-06
LINC00665	ENSG00000232677	19	36313067	36331770	1.084013	0.980084889-1.198960943	0.1167017	2.79937129	5.30E-25	0.994308	7.15E-07
AC074138.1	ENSG00000276071	19	36668102	36669404	1.080642	0.106591945-10.95567664	0.9476771	1.98880199	9.27E-11	0.848545	3.13E-08
AC020928.1	ENSG00000267260	19	36773112	36777078	1.12767	0.798534196-1.592467756	0.4950238	2.65442072	4.91E-11	1.582744	1.45E-10
AC016590.1	ENSG00000267605	19	37235507	37304395	2.888348	0.380428179-21.92937427	0.3051113	2.30444156	8.22E-09	1.077744	5.64E-07
LINC01535	ENSG00000226686	19	37251885	37265535	0.971267	0.484217739-1.948213139	0.9345744	3.5382071	6.10E-21	1.396492	7.16E-10
AC022148.1	ENSG00000180458	19	37545470	37549171	8.719968	0.234454813-324.3176754	0.2404817	2.0560834	2.91E-05	1.046739	0.000619
AC005393.1	ENSG00000276445	19	39812972	39813555	1.047398	0.784406001-1.398563475	0.7535892	2.24074271	6.03E-15	0.840169	3.36E-08
LINC01480	ENSG00000270164	19	41535183	41536904	0.976899	0.905191187-1.054288019	0.5479357	2.25207697	8.55E-12	0.956913	3.72E-05
AC006213.3	ENSG00000267191	19	43901909	43927767	1.06319	0.822875964-1.373685129	0.6392781	1.95081959	6.49E-08	0.964898	7.23E-05

Supplementary Material

<i>AC006213.4</i> *	ENSG000002778 06	19	43976815	43977448	1.22088 8	1.010522772- 1.475045459	0.038597 4	1.0509604 9	3.76E- 07	0.51092 8	0.00052 3
<i>AC006213.5</i>	ENSG000002784 92	19	43978376	43978663	1.42009 9	0.948638131- 2.125870756	0.088415 8	1.1688803 3	6.19E- 05	0.64965 5	0.00053 7
<i>AC021092.1</i>	ENSG000001860 19	19	44103007	44113183	1.40416 3	0.278780441- 7.072492649	0.680710 1	1.8857567 5	3.90E- 09	1.32982 1	1.98E- 12
<i>AC022150.4</i>	ENSG000002698 25	19	52650437	52653284	0.55235 9	0.195698299- 1.559034536	0.262216 4	1.5611896	7.48E- 07	0.82672 7	0.00026 4
<i>AC005261.2</i>	ENSG000002686 78	19	57350848	57352012	1.07280 9	0.990760595- 1.161652236	0.083398 1	1.0137512 6	0.00093 6	0.86247 2	2.46E- 06
<i>AC004076.2</i>	ENSG000002764 49	19	57449689	57453011	3.13285 2	0.727111495- 13.49828904	0.125438	1.3799478 8	1.97E- 12	0.69157 7	3.16E- 08
<i>AC008969.1</i>	ENSG000001765 93	19	58002061	58011232	1.78319 3	0.606604383- 5.241931244	0.293097 7	0.8057204 3	1.75E- 06	0.61792 4	1.98E- 07
<i>AC020915.2</i>	ENSG000002685 16	19	58257270	58278808	0.97035 1	0.530924298- 1.773476373	0.922075 3	1.5234659 4	1.00E- 09	0.63769 8	1.53E- 05
<i>LINC02560</i>	ENSG000002683 07	19	58400221	58400679	1.17895 1	0.335066508- 4.148211046	0.797583 4	1.9851536 1	4.46E- 05	1.17823 8	5.27E- 05
<i>AL031665.1</i>	ENSG000002742 69	20	1186092	1207036	1.36376 1	0.952215697- 1.953175403	0.090493 1	2.1172476	3.15E- 06	1.01304 5	0.00011
<i>AL117335.1</i>	ENSG000002766 49	20	1888128	1894374	1.18563 6	0.822491936- 1.709114085	0.361442 6	1.5735125 6	1.43E- 09	1.25855 2	1.60E- 13
<i>AL109976.1</i>	ENSG000002772 87	20	3239705	3245382	1.12979 3	0.3364849-3.793429937	0.843459 8	2.0896215 3	2.45E- 11	0.76894 9	0.00020 3
<i>AL118505.1</i>	ENSG000002781 92	20	6065966	6067897	0.96077 2	0.349442779- 2.641584713	0.938185 7	2.5441488 6	3.69E- 10	1.41525 8	5.48E- 08
<i>AL354824.2</i>	ENSG000002324 48	20	10172701	10186740	4.27260 6	0.960366159- 19.00854752	0.056538 4	1.5885382 3	0.00061 8	0.96840 1	0.00048 3
<i>AL121772.3</i>	ENSG000002769 52	20	25284915	25285588	1.22400 3	0.465279955- 3.219963377	0.682115 4	1.6440464	1.06E- 11	0.52185 5	0.00018 7
<i>FAM182B</i>	ENSG000001751 70	20	25762384	25868225	1.15580 7	0.331285313- 4.032442803	0.820332 5	2.1129200 3	9.91E- 14	0.84500 6	3.22E- 06
<i>AL117382.2</i>	ENSG000002333 76	20	44389624	44391537	0.68652 4	0.463908278- 1.015967741	0.060006 2	1.0785341 2	0.00034 4	- 0.85057	7.14E- 05
<i>AL031055.1</i>	ENSG000002717 84	20	46689659	46690289	1.20380 1	0.728821717- 1.988327591	0.468782 8	- 0.9299595	5.51E- 07	- 0.74441	3.27E- 08
<i>LINC01754</i>	ENSG000002245 65	20	47391925	47412327	0.92184	0.597667672- 1.421842317	0.712803 2	1.8707187 9	1.47E- 06	1.03359 4	7.59E- 05

<i>LINC00494</i>	ENSG000002356 21	20	48359884	48370636	1.10978 4	0.94350233- 1.305370691	0.208482	2.9335348 7	6.36E- 09	1.86813 2	3.87E- 07
<i>ZFAS1</i>	ENSG000001774 10	20	49278178	49299600	1.00390 1	0.994257892- 1.013636833	0.429204 2	0.9783937 8	6.79E- 10	0.50077 3	2.18E- 05
<i>LINC01711</i>	ENSG000002689 41	20	58634772	58635738	2.28347 5	0.803670351- 6.48805799	0.121203 8	2.6477471 7	2.87E- 06	1.40353 1	5.82E- 05
<i>AJ009632.2</i>	ENSG000002294 25	21	15368966	15627342	0.94514 7	0.857639783- 1.041581831	0.255083 6	1.5229958 9	5.34E- 05	- 1.09558	4.92E- 05
<i>MIR99AHG</i>	ENSG000002153 86	21	15928296	16645467	1.00708 5	0.640538677- 1.583386369	0.975604 9	- 0.8752107	2.46E- 05	- 0.53501	0.00068 9
<i>LINC01549</i>	ENSG000002325 60	21	17438821	17450104	0.88617 7	0.782075399- 1.004135338	0.058060 8	2.9966018 1	3.26E- 14	1.31447 8	8.49E- 06
<i>AP000472.1</i>	ENSG000002270 75	21	21933315	21975681	1.11994 7	0.435208576- 2.882022143	0.814288 9	- 1.4494686	9.28E- 05	- 1.26922	5.85E- 06
<i>AP001596.1</i>	ENSG000002326 92	21	26378552	26471698	0.17836 8	0.001004099- 31.68532648	0.514203 2	1.9032073 1	2.93E- 05	1.19206 5	5.61E- 06
<i>AP000695.2</i>	ENSG000002338 18	21	36445731	36532408	0.91972 6	0.650371424- 1.30063418	0.636007 5	1.3328334 3	6.37E- 07	0.76849 2	6.56E- 06
<i>DSCR9*</i>	ENSG000002303 66	21	37208503	37221736	152.029 2	1.519381802- 15212.03525	0.032519 1	1.5660820 2	1.37E- 08	0.59023 3	5.69E- 05
<i>AP001432.1</i>	ENSG000002425 53	21	37221419	37237744	1.80221 2	0.764016069- 4.25117709	0.178552 3	1.8218337 9	7.43E- 10	0.71441 6	9.28E- 06
<i>AP001626.1</i>	ENSG000002350 23	21	42648271	42651244	1.20701 5	0.235652597- 6.182343362	0.821398 4	1.8600548 5	7.47E- 05	1.11797 7	0.00046 4
<i>AP001628.1</i>	ENSG000002252 18	21	42831040	42836477	2.02870 1	0.806088627- 5.105675753	0.133044 5	1.6502426	6.92E- 07	0.64381 6	0.00012 4
<i>AP001065.3</i>	ENSG000002742 25	21	44477850	44478493	1.03171 6	0.931475647- 1.142744104	0.549342 1	- 1.0523478	2.52E- 05	- 1.27501	2.25E- 13
<i>LINC00205*</i>	ENSG000002237 68	21	45288050	45297806	1.17521 9	1.021455635- 1.35212849	0.024027 9	1.5502036 2	9.89E- 24	0.74484 8	4.90E- 13
<i>LINC00316</i>	ENSG000002376 64	21	45338590	45341990	0.95994 9	0.314121712- 2.933583359	0.942828 1	2.3852687 8	1.23E- 05	1.30934 1	0.00011 2
<i>LINC01694</i>	ENSG000002339 22	21	45593654	45603088	1.42898 1	0.968168943- 2.109122294	0.072318 8	2.7651956 1	4.68E- 11	1.52575 8	3.51E- 07
<i>AP001469.3 *</i>	ENSG000002394 15	21	46251549	46254133	1.82654 3	1.141534718- 2.922608599	0.012007 6	1.9610556 6	1.03E- 24	0.53646 5	5.11E- 05
<i>DGCR9</i>	ENSG000002730 32	22	18970525	19031242	0.90586 4	0.443671862- 1.849539622	0.786030 8	2.0776041 3	2.23E- 12	0.78389 8	0.00016 3
<i>AL022324.3</i>	ENSG000002729 42	22	25434324	25435070	2.31543 9	0.499402703- 10.73533643	0.283369 2	2.5517794 3	2.18E- 06	1.21784 9	0.00026 6

Supplementary Material

<i>AL008721.2</i>	ENSG000002729 77	22	25476218	25479971	1.79172 5	0.603493841- 5.31948796	0.293548 6	1.2230363 1	1.19E- 09	0.66306 5	9.28E- 07
<i>AC004832.5</i>	ENSG000002733 50	22	30420512	30420912	0.95778 2	0.772448025- 1.187583952	0.694231 1	- 0.9281883	3.73E- 05	-0.7138	1.66E- 05
<i>AC004832.6</i>	ENSG000002734 28	22	30435544	30436247	1.93533 8	0.248561718- 15.06882548	0.528327 8	- 0.8616625	0.00015 4	- 0.71186	3.60E- 05
<i>AC005005.3</i>	ENSG000002733 87	22	31082156	31083565	1.31610 1	0.764207563- 2.266557957	0.321997 5	1.0992590 2	6.61E- 08	0.53397 5	0.00012 2
<i>Z97056.1</i>	ENSG000002286 20	22	38424288	38427336	1.01843 1	0.941233204- 1.101961194	0.649755 1	1.5381161 4	4.27E- 06	- 0.99677	5.45E- 05
<i>LINC01315</i>	ENSG000002298 91	22	42364390	42369284	1.01662 2	0.779247368- 1.326306645	0.903286 1	1.3778739 2	1.69E- 10	0.58864	0.00013 2
<i>FIRRE*</i>	ENSG000002134 68	X	13168877 9	13183086 2	3.21562 3	1.023169703- 10.10607467	0.045590 1	3.2726556 8	3.51E- 19	0.79858 1	0.00035 5
<i>LINC00632</i>	ENSG000002039 30	X	14070956 2	14079321 5	1.83397 3	1.198149366- 2.80720913	0.005233 9	2.6643238 4	2.91E- 05	2.00421 1	1.02E- 06
<i>AC244090.3</i>	ENSG000002617 73	X	15451784 0	15451863 1	6.42441 9	0.660925747- 62.44750699	0.108918 5	1.6084942 9	7.26E- 05	0.82607 8	0.00029 3
