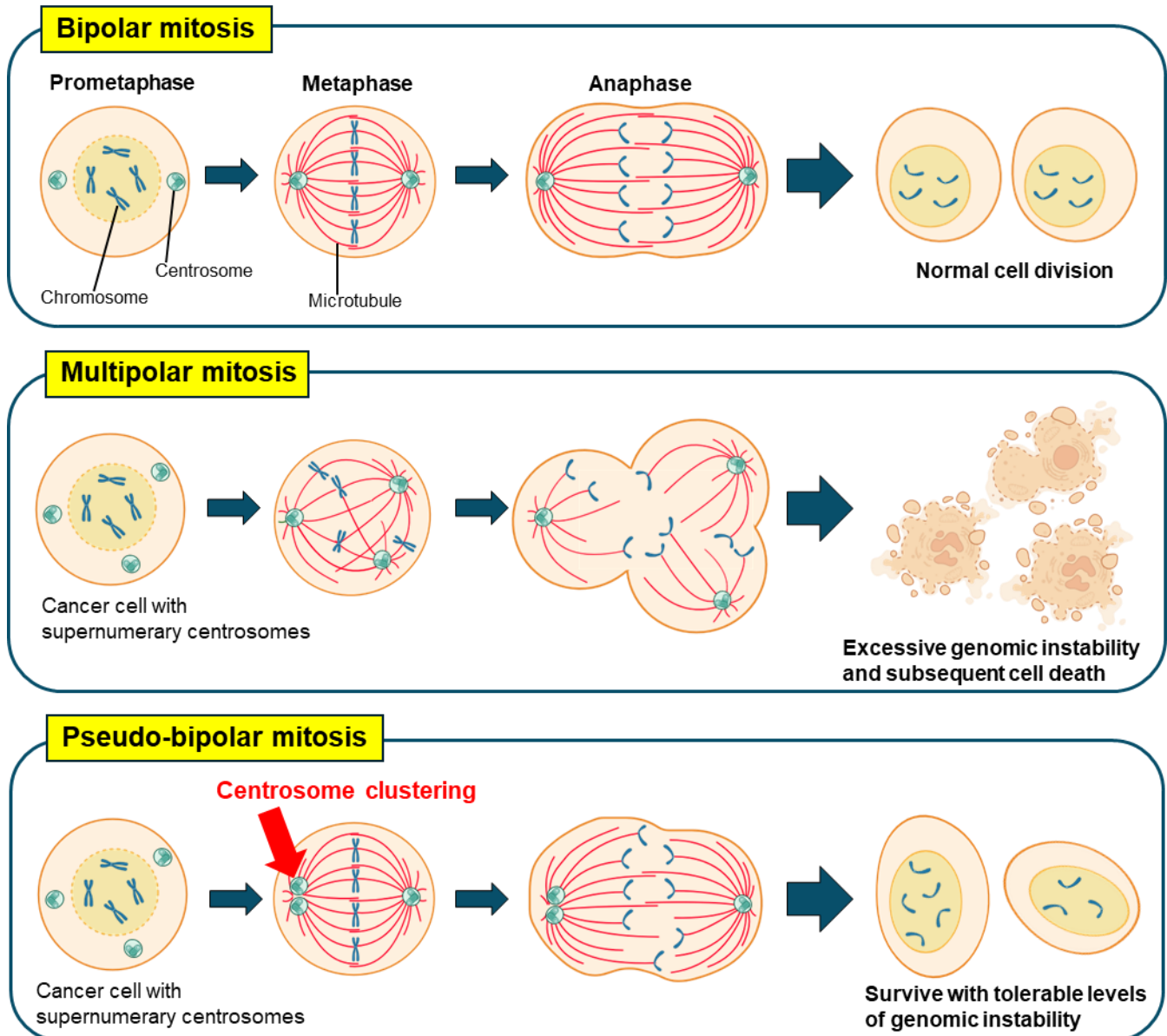
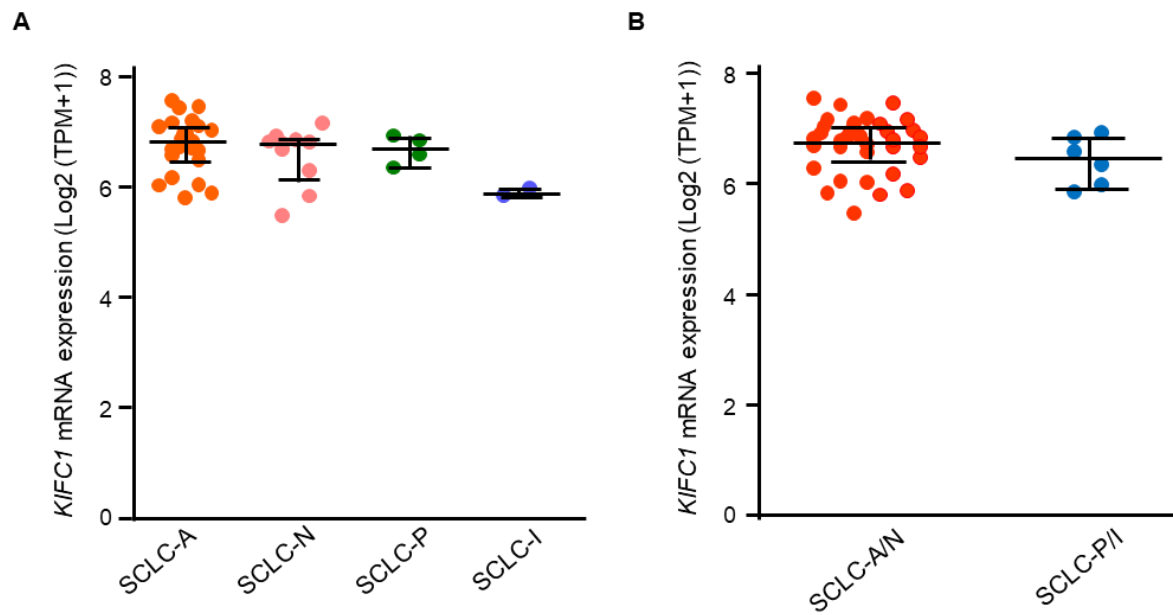




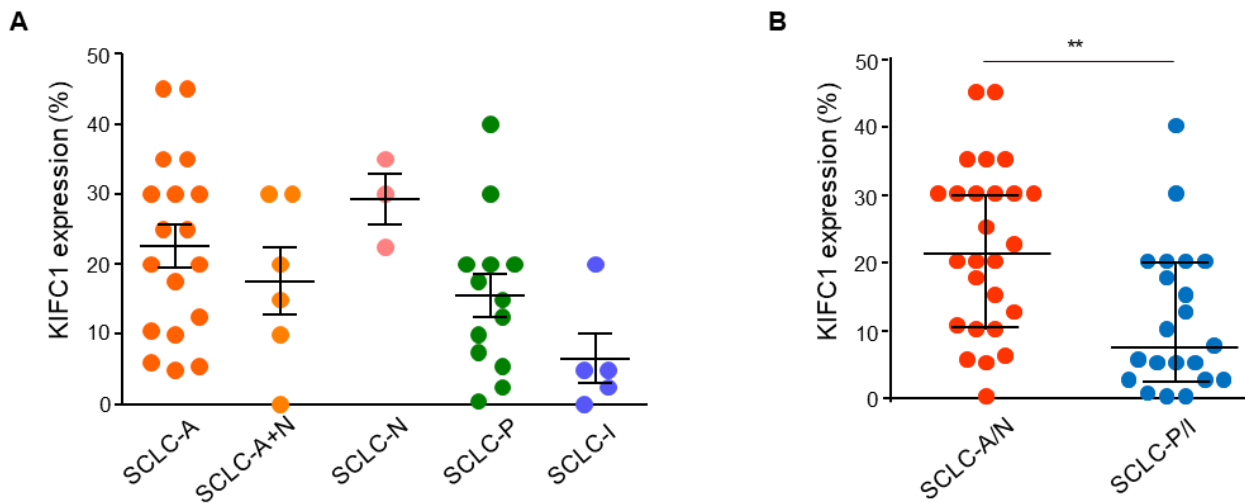
Supplemental Figure 1. Three types of cell mitosis.

Normal cells with two centrosomes form bipolar spindles and undergo bipolar mitosis dividing into two daughter cells (upper panels). On the other hand, cancer cells with supernumerary centrosomes undergo multipolar mitosis that may lead to subsequent cell death due to excessive chromosome mis-segregation (middle panels). To avoid this detriment process, cancer cells cluster their supernumerary centrosomes into two poles, which enables cells to form bipolar spindles and undergo mitosis similar with normal cells (pseudo-bipolar mitosis) that leads to tolerable levels of genomic instability (lower panels).



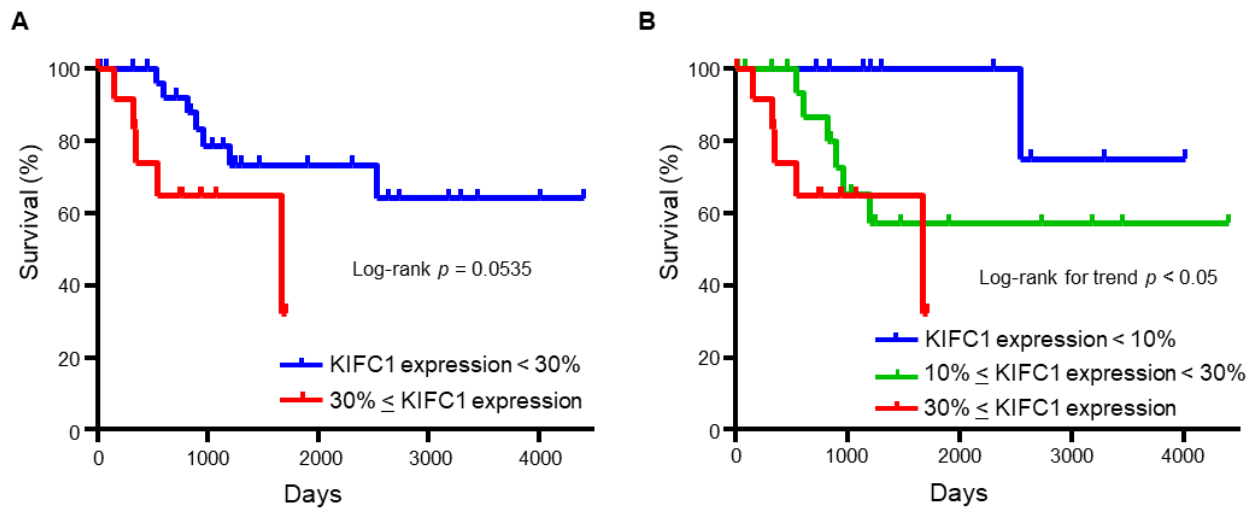
Supplemental Figure 2. Comparison of *KIFC1* mRNA expression among SCLC transcriptional subtypes in the CCLE dataset.

(A) *KIFC1* mRNA expression among SCLC-A, SCLC-N, SCLC-P, and SCLC-I subtypes. **(B)** Combined analysis of SCLC-A/N subtypes (SCLC-A, SCLC-A+N, and SCLC-N) versus SCLC-P/I subtypes (SCLC-P and SCLC-I) for reference. Each dot represents a single sample. The *p* values were obtained by using a two-sided *t* test with multiple comparisons adjusted using Tukey's method. No significant differences were observed among subtypes. Bars represent median values and interquartile range.



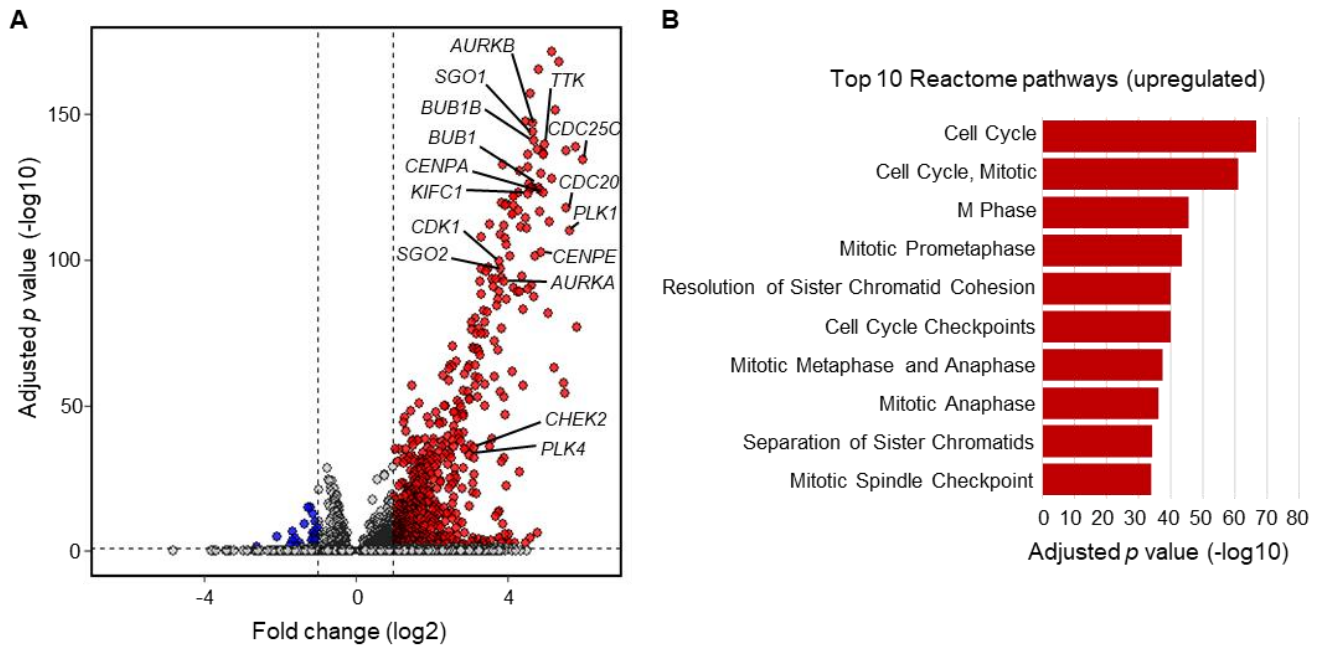
Supplemental Figure 3. Immunohistochemical comparison of KIFC1 protein expression among SCLC transcriptional subtypes.

(A) KIFC1 protein expression among SCLC-A, SCLC-N, SCLC-P, and SCLC-I subtypes. **(B)** Combined analysis of SCLC-A/N subtypes (SCLC-A, SCLC-A+N, and SCLC-N) versus SCLC-P/I subtypes (SCLC-P and SCLC-I) for reference. KIFC1 expression was higher in the SCLC-A/N subgroup. Each dot represents a single case. The p values were obtained by using a two-sided t test with multiple comparisons adjusted using Tukey's method. Double asterisk is $p < 0.01$. Bars represent median values and interquartile range.



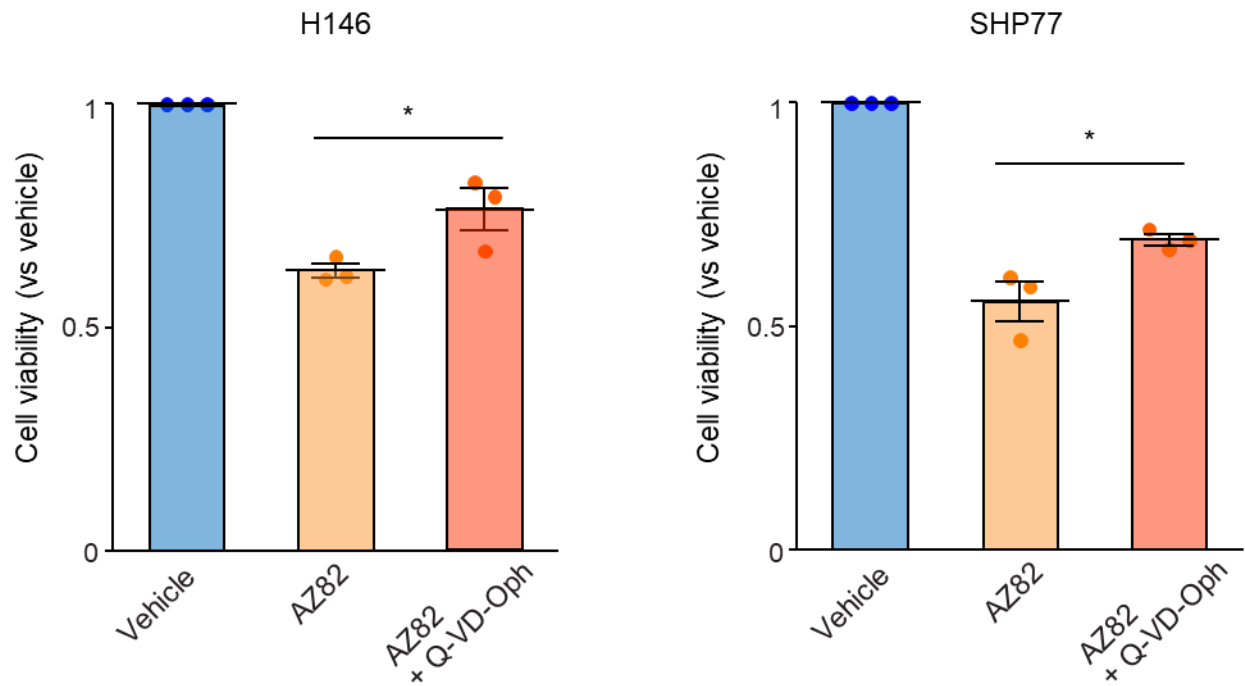
Supplemental Figure 4. Prognostic impact of KIFC1 expression in SCLC.

(A) Kaplan–Meier curve comparing patients dichotomized into KIFC1-high and KIFC1-low groups. A strong trend toward shorter overall survival was noted in the high-expression group ($p = 0.053$, log-rank test). **(B)** Kaplan–Meier analysis of overall survival in patients from the institutional SCLC TMA cohort stratified into three groups according to KIFC1 IHC expression levels (low, intermediate, and high). A trend toward poorer survival with increasing KIFC1 expression was observed (log-rank test for trend, $p < 0.05$).



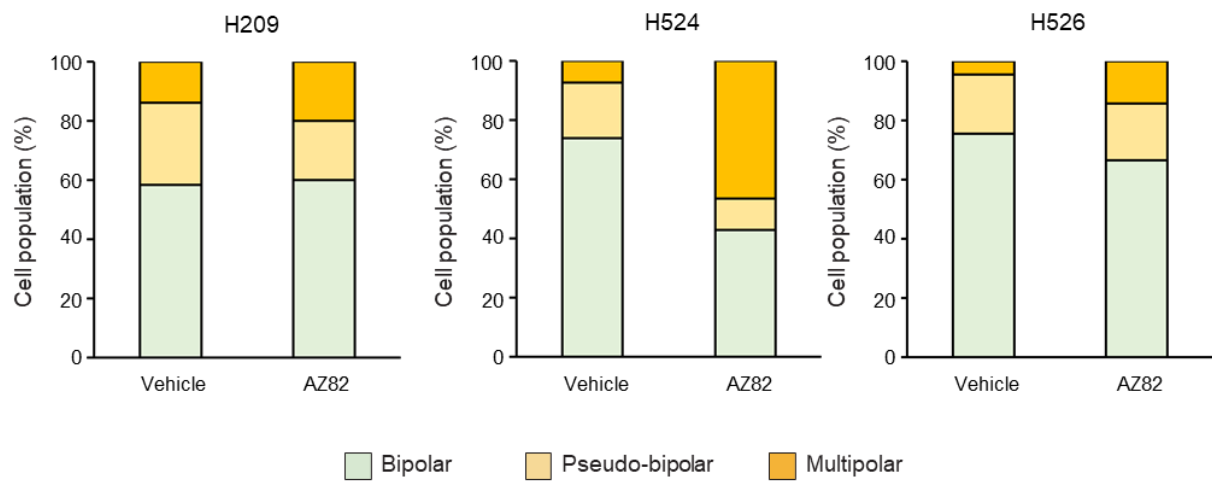
Supplemental Figure 5. Transcriptomic profiles of SCLC cells with high *KIFC1* expression.

(A) Volcano plots of differentially expressed genes between *KIFC1*-high SCLC cells and the remaining tumor cell population. Thresholds were set at $p < 0.05$ and absolute fold change ($\log_2$) > 1 . Blue and red dots indicate downregulated and upregulated genes meeting these thresholds, respectively. **(B)** Top 10 upregulated pathways in *KIFC1*-high SCLC cells identified by GO analysis.



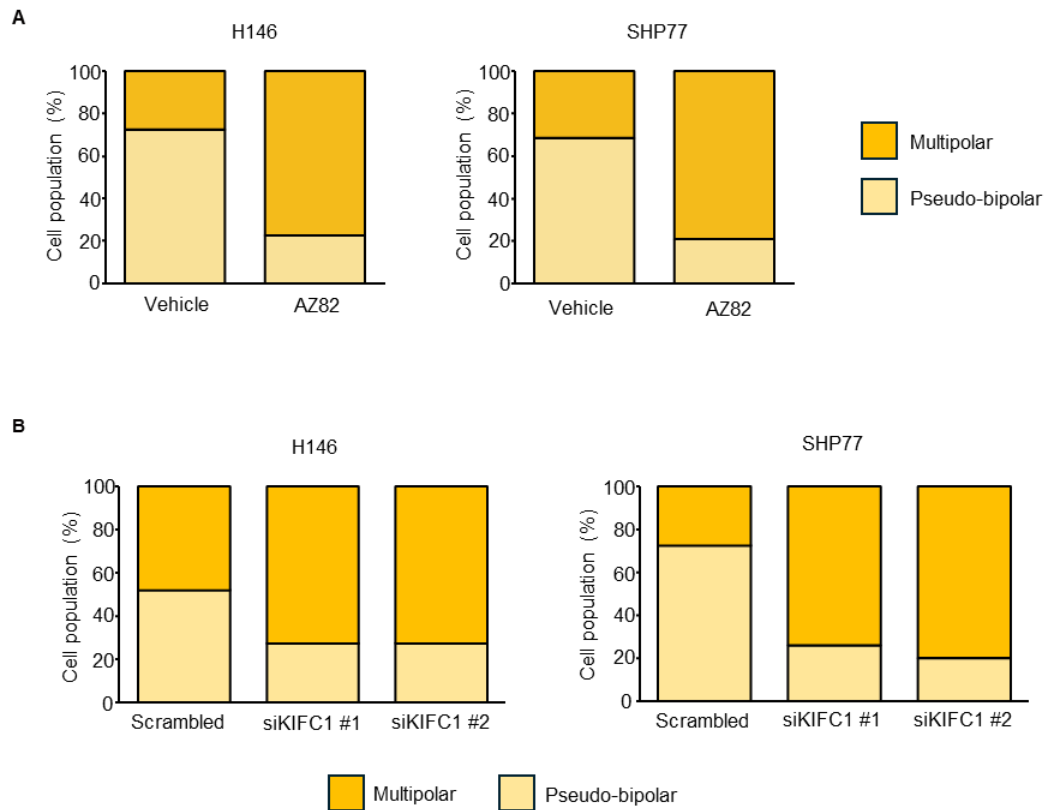
Supplemental Figure 6. Partial rescue of AZ82-induced viability loss by pan-caspase inhibition.

Cell viability (normalized to vehicle) in H146 and SHP77 treated with AZ82 (2.5 μ M) $\pm$ Q-VD-OPh for 48 h. Error bars represent standard deviation. The p values were obtained by using a two-sided t test with multiple comparisons adjusted using Dunnett's method. Single asterisk is $p < 0.05$.



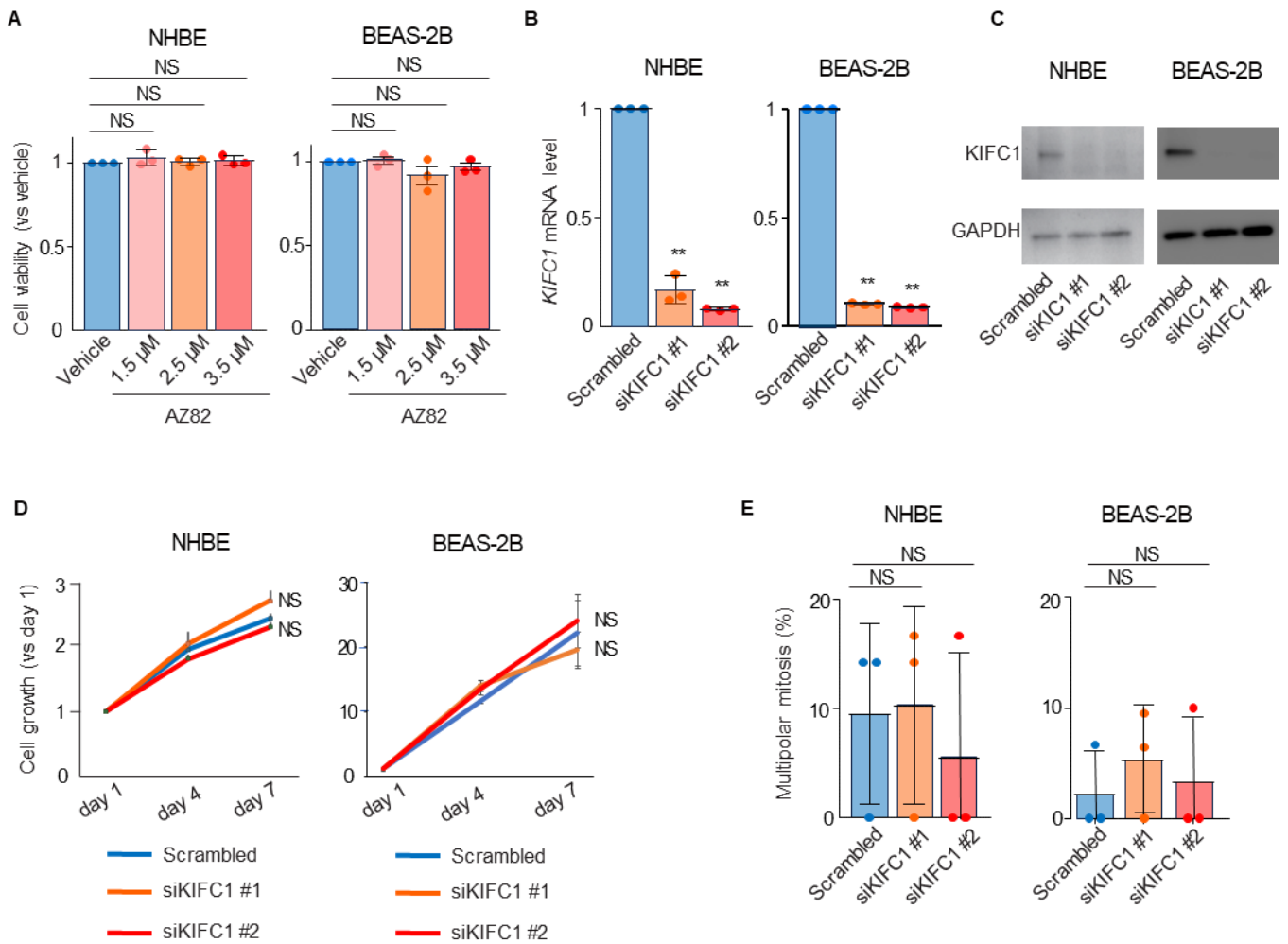
Supplemental Figure 7. Induction of anaphase catastrophe in SCLC cells following KIFC1 inhibition.

Distribution of bipolar, pseudo-bipolar, and multipolar SCLC cells after AZ82 treatment in H209, H524, and H526 cells.



Supplemental Figure 8. Anaphase catastrophe induction in SCLC cells after KIFC1 inhibition.

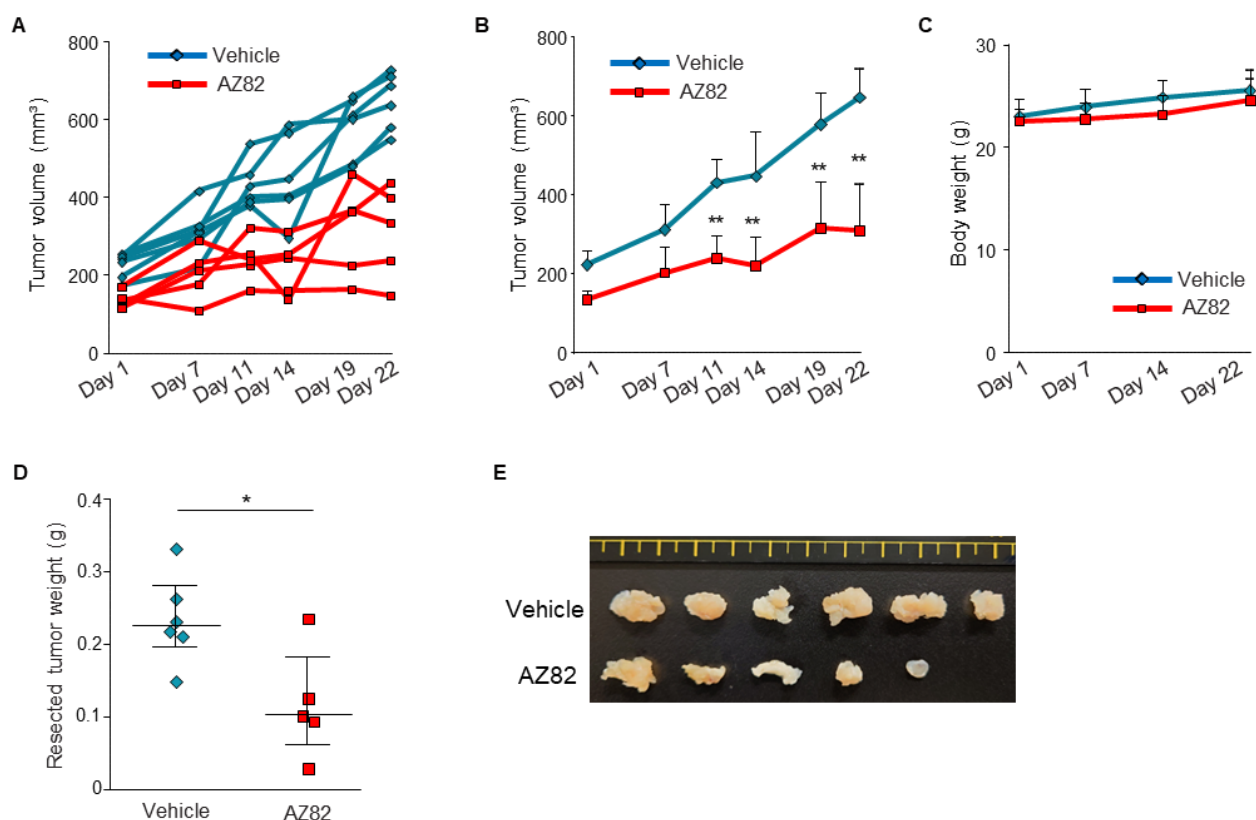
Percentages of pseudo-bipolar and multipolar cell populations among SCLC cells with supernumerary centrosomes after independent KIFC1 inhibition by AZ82 (**A**) and siRNAs (**B**) are displayed. These data are derived from the same experiments as those summarized in Figure 7, E and F, and are presented here in an alternative format to separately visualize the pseudo-bipolar and multipolar subpopulations.



Supplemental Figure 9. KIFC1 inhibition in NHBE and BEAS-2B cells.

(A) AZ82 effects on cell viability of NHBE and BEAS-2B cells. (B and C) Knockdown of KIFC1 expression using siRNAs was confirmed by RT-qPCR (B) and immunoblot analysis (C). (D) Cell proliferation curves of NHBE and BEAS-2B cells after KIFC1 knockdown. (E) Percentages of NHBE and BEAS-2B cells undergoing multipolar anaphase after KIFC1 knockdown.

Error bars are standard deviation. The p values were obtained by using a two-sided t test with multiple comparisons adjusted Dunnett's method. Double asterisk is $p < 0.01$. NS represents no significant difference.



Supplemental Figure 10. In vivo antitumor effects of AZ82 treatment in SCLC.

(A and B) Comparison of tumor growth in SHP77-derived xenograft model treated with vehicle or AZ82. Spider plots showing tumor volume for each mouse are shown in **(A)**, and the average tumor volumes of the vehicle-treated and the AZ82-treated group over time are shown in **(B)**. Error bars represent standard deviation. p values were calculated using a two-sided t test. Double asterisk is $p < 0.01$. **(C)** Body weights of mice did not appreciably change during treatment with vehicle or AZ82. **(D)** Comparison of resected tumor weights after treatment with vehicle or AZ82. Each dot represents a single mouse. Bars indicate median values and interquartile range. p values were calculated using two-sided t tests. Single asterisk is $p < 0.05$. **(E)** Photographs of resected tumors from the vehicle-treated and the AZ82-treated groups.

Supplemental Table 1. SCLC patient characteristics of our in-house TMA.

Characteristics	Patient (n=47)
Age, median (IQR)	72 (66.5, 77)
Sex, Male, n (%)	43 (91)
Smoking history	
Current, n (%)	11 (23)
Former, n (%)	31 (66)
Never, n (%)	4 (9)
ND, n (%)	1 (2)
Stage	
IA, n (%)	11 (23)
IB, n (%)	13 (28)
IIA, n (%)	4 (9)
IIB, n (%)	5 (11)
IIIA, n (%)	8 (17)
IIIB, n (%)	3 (6)
IVA, n (%)	2 (4)
ND	1 (2)
Molecular subtype	
NE type, n (%)	28 (60)
non-NE type, n (%)	19 (40)
TTF-1	
positive, n (%)	22 (47)
negative, n (%)	25 (53)

Supplemental Table 2. Significantly downregulated (A) or upregulated (B) genes in *KIFC1*-high cells.

A

Gene	log2FoldChange	p value
<i>BAIAP3</i>	-2.594607	0.0187645
<i>LY6H</i>	-2.089371	6.85E-06
<i>SCG5</i>	-1.717057	0.0158855
<i>AVP</i>	-1.674314	0.0001362
<i>NTHL1</i>	-1.650727	2.16E-07
<i>ABHD14A</i>	-1.60286	3.59E-05
<i>EPHX1</i>	-1.534174	0.0421138
<i>MCM6</i>	-1.480237	0.0265517
<i>NME3</i>	-1.471428	0.0024301
<i>CHGA</i>	-1.355789	6.25E-10
<i>NLRP1</i>	-1.24073	7.33E-16
<i>C4orf48</i>	-1.186215	6.05E-16
<i>EXOSC5</i>	-1.155795	0.0001473
<i>PRELID1</i>	-1.135747	1.27E-13
<i>SNHG19</i>	-1.121906	5.66E-07
<i>REX1BD</i>	-1.120706	3.59E-05
<i>AC245595.1</i>	-1.1177	0.0177301
<i>RAB3B</i>	-1.101574	4.39E-05
<i>PWAR6</i>	-1.095661	0.0217953
<i>TRAPPC6A</i>	-1.094267	4.73E-06
<i>PMEPA1</i>	-1.074425	0.0002812
<i>CD63</i>	-1.055742	9.47E-11
<i>C19orf70</i>	-1.05343	9.24E-08
<i>PLPPR3</i>	-1.048012	0.0472424
<i>MIAT</i>	-1.036593	0.0001422
<i>NUDT14</i>	-1.027246	1.45E-05
<i>DLL3</i>	-1.012524	1.08E-08
<i>APRT</i>	-1.002824	0.0073313

B

Gene	log2FoldChange	p value			
<i>CDC25C</i>	6.0135209	5.68E-135	<i>BUB1</i>	4.5672535	6.71E-127
<i>TICRR</i>	5.8438246	1.54E-77	<i>NUF2</i>	4.5646237	1.10E-132
<i>ASPM</i>	5.8146563	1.72E-139	<i>NDC80</i>	4.5594203	6.66E-137
<i>PLK1</i>	5.6417724	1.42E-110	<i>NCAPH</i>	4.5546779	1.40E-123
<i>KIF18B</i>	5.5659959	4.94E-138	<i>CENPF</i>	4.5445352	1.00E-90
<i>CDC20</i>	5.5454584	1.43E-118	<i>CIT</i>	4.5254283	1.32E-111
<i>PIF1</i>	5.5300862	5.89E-55	<i>C9orf84</i>	4.5004415	0.0011601
<i>FAM72C</i>	5.4865461	2.74E-58	<i>PBK</i>	4.4840205	3.26E-148
<i>KIF23</i>	5.3820797	1.46E-168	<i>SKA1</i>	4.4762563	2.66E-115
<i>KIF2C</i>	5.2611635	3.69E-152	<i>FAM72B</i>	4.4302676	2.20E-57
<i>FAM72D</i>	5.2538254	1.08E-63	<i>ERCC6L</i>	4.4164078	7.74E-84
<i>DEPDC1</i>	5.1808661	2.19E-128	<i>NMU</i>	4.3844221	5.29E-95
<i>DLGAP5</i>	5.179129	2.86E-172	<i>TPX2</i>	4.3453649	5.37E-112
<i>KIF20A</i>	5.1253865	6.19E-114	<i>CCNA1</i>	4.3355101	4.48E-28
<i>CCNB1</i>	5.0767116	1.53E-82	<i>TOP2A</i>	4.3311347	8.65E-90
<i>TTK</i>	4.9780717	2.73E-140	<i>ANLN</i>	4.3170857	3.56E-131
<i>CENPA</i>	4.9705842	5.82E-124	<i>NEK2</i>	4.3128884	6.46E-124
<i>KIF4A</i>	4.9596312	3.23E-137	<i>GTSE1</i>	4.2823422	1.04E-117
<i>MKI67</i>	4.9469658	4.37E-137	<i>POLQ</i>	4.2737761	5.61E-90
<i>CENPE</i>	4.9056971	4.00E-103	<i>AC011498.3</i>	4.2052176	0.0011601
<i>CDCA2</i>	4.9012734	2.75E-130	<i>ARHGAP11A</i>	4.1846709	1.28E-119
<i>UBE2C</i>	4.8745855	1.11E-124	<i>KNL1</i>	4.1839246	2.34E-122
<i>CCNB2</i>	4.8513763	1.81E-117	<i>KIF15</i>	4.1794987	1.11E-122
<i>KIF14</i>	4.8472084	1.41E-125	<i>GAS2L3</i>	4.1730118	3.98E-91
<i>HJURP</i>	4.8421126	5.01E-166	<i>KIF11</i>	4.1360246	2.02E-116
<i>TROAP</i>	4.8005977	1.38E-138	<i>ESCO2</i>	4.1330323	1.73E-116
<i>Z94721.1</i>	4.7945392	5.53E-07	<i>NEIL3</i>	4.1266872	1.47E-62
<i>CDCA8</i>	4.7484046	5.69E-102	<i>AC084757.2</i>	4.0826167	0.0011601
<i>BUB1B</i>	4.7100969	7.64E-142	<i>PATE1</i>	4.0806682	0.0011601
<i>IQGAP3</i>	4.7049406	4.99E-88	<i>DIAPH3</i>	4.0743859	7.57E-102
<i>SGO1</i>	4.6876566	8.47E-145	<i>AC245100.7</i>	4.0453006	0.0011601
<i>AURKB</i>	4.6822396	1.33E-147	<i>FCRLA</i>	4.0303563	8.31E-07
<i>HMMR</i>	4.6543886	1.49E-125	<i>SIGLEC10</i>	4.0105879	0.0007318
<i>CCNA2</i>	4.636951	4.22E-92	<i>KIFC1</i>	3.9962101	5.54E-120
<i>CKAP2L</i>	4.6203896	8.49E-158	<i>SHCBP1</i>	3.9930846	2.83E-87
<i>CEP55</i>	4.6148819	3.11E-125	<i>PRR11</i>	3.9835708	5.98E-106
<i>RBM15-AS1</i>	4.5977042	3.43E-05	<i>HASPIN</i>	3.9781213	3.05E-23
			<i>NCAPG</i>	3.9557468	6.52E-108
			<i>CDCA3</i>	3.9537231	2.40E-119

<i>AC007240.1</i>	3.9520395	2.04E-47	<i>TREM1</i>	3.4384934	0.0007702
<i>AC008750.7</i>	3.9464652	8.31E-07	<i>DSC3</i>	3.4229939	0.0134709
<i>CDKN3</i>	3.9279398	1.59E-112	<i>E2F8</i>	3.4207781	6.13E-58
<i>BORA</i>	3.9265016	6.67E-33	<i>CIP2A</i>	3.4193855	1.68E-75
<i>ARHGEF39</i>	3.9220973	1.82E-53	<i>EME1</i>	3.4080127	1.72E-50
<i>ECT2</i>	3.9165835	3.28E-93	<i>KIF20B</i>	3.4012718	2.12E-79
<i>BIRC5</i>	3.8986805	2.67E-133	<i>NCAPD2</i>	3.3892025	3.78E-83
<i>HIST1H2BM</i>	3.8914251	4.67E-10	<i>VIP</i>	3.3805545	0.0014387
<i>HCK</i>	3.8695305	0.0014058	<i>UXT-AS1</i>	3.3754953	0.0002904
<i>AURKA</i>	3.8524424	3.00E-77	<i>SPC24</i>	3.3325869	1.25E-97
<i>HIST1H3G</i>	3.8483667	7.86E-95	<i>TACC3</i>	3.322811	9.24E-89
<i>HIST2H2AB</i>	3.848236	2.84E-31	<i>SPC25</i>	3.3132572	1.22E-108
<i>PIMREG</i>	3.8431142	4.05E-120	<i>NUSAP1</i>	3.3132244	2.95E-75
<i>HIST1H2AJ</i>	3.8310524	2.30E-55	<i>AC008121.2</i>	3.300306	0.0253564
<i>SGO2</i>	3.8228691	1.23E-97	<i>MAD2L1</i>	3.2916572	2.82E-93
<i>SPAG5</i>	3.8096483	1.42E-109	<i>MYBL1</i>	3.2905283	7.95E-68
<i>PARPBP</i>	3.8080126	5.09E-90	<i>KIF18A</i>	3.2698109	3.64E-60
<i>PATE2</i>	3.8054741	2.46E-14	<i>LCE1E</i>	3.2633805	9.37E-05
<i>KCNJ3</i>	3.8021885	3.51E-05	<i>SKA3</i>	3.260812	2.60E-77
<i>CDK1</i>	3.7990767	3.01E-100	<i>HIST1H2AL</i>	3.2495562	1.46E-69
<i>MYLK2</i>	3.7912276	2.16E-05	<i>HYLS1</i>	3.2399234	1.34E-53
<i>AC012073.1</i>	3.7668306	4.87E-14	<i>RRM2</i>	3.2378055	2.33E-70
<i>RTKN2</i>	3.756784	5.30E-87	<i>AC100802.1</i>	3.1922791	2.02E-20
<i>KNSTRN</i>	3.7496555	9.70E-70	<i>CKAP2</i>	3.1878706	1.69E-75
<i>MXD3</i>	3.7425797	4.04E-85	<i>FAM111A</i>	3.1763874	1.15E-64
<i>POC1A</i>	3.7058985	4.47E-94	<i>AC108673.2</i>	3.1754952	0.0258539
<i>AL023803.2</i>	3.6904831	1.42E-12	<i>INCENP</i>	3.1706498	1.81E-60
<i>PSRC1</i>	3.6658151	1.08E-60	<i>MND1</i>	3.1614471	9.67E-58
<i>FBXO43</i>	3.6551181	6.40E-73	<i>MELK</i>	3.1579375	7.21E-81
<i>OIP5</i>	3.6268758	1.24E-91	<i>ACRV1</i>	3.1465343	0.0087148
<i>ARHGAP11B</i>	3.6174692	2.20E-39	<i>DDIAS</i>	3.1465095	4.17E-36
<i>DEPDC1B</i>	3.6127401	3.34E-94	<i>HIST1H2BB</i>	3.1451191	4.51E-27
<i>AC091057.4</i>	3.5658457	0.000285	<i>STIL</i>	3.1438842	2.03E-70
<i>HIST1H3B</i>	3.5390257	8.39E-113	<i>AC015849.5</i>	3.1395324	0.0006871
<i>REEP4</i>	3.5377251	1.86E-36	<i>PTPRE</i>	3.1252576	1.22E-32
<i>AC141424.1</i>	3.5296759	0.0253564	<i>CKS1B</i>	3.0933092	9.85E-71
<i>RACGAP1</i>	3.5117377	2.61E-98	<i>C2orf48</i>	3.0922766	3.28E-24
<i>HIST1H1B</i>	3.4833285	5.25E-83	<i>AC024592.2</i>	3.0874098	4.34E-05
<i>FOXM1</i>	3.4480928	9.74E-97	<i>NOSTRIN</i>	3.0844295	8.69E-21

<i>PRC1</i>	3.0676117	2.78E-79	<i>CDKN2D</i>	2.6579726	5.49E-66
<i>FAM83A</i>	3.0625196	0.0008083	<i>FGF21</i>	2.6517563	5.48E-09
<i>CENPW</i>	3.0535448	1.01E-76	<i>FAM72A</i>	2.6476276	1.85E-13
<i>HIST1H4C</i>	3.0433131	4.38E-37	<i>PRSS3</i>	2.6433211	1.19E-25
<i>HIST1H3C</i>	3.0195939	7.82E-34	<i>SMTN</i>	2.6322856	1.08E-26
<i>EXO1</i>	3.0162664	1.16E-52	<i>DBF4</i>	2.6322436	1.69E-48
<i>AL133215.2</i>	3.0160102	2.34E-16	<i>HIST2H2AC</i>	2.6117766	2.32E-29
<i>CENPI</i>	3.013487	4.23E-53	<i>KIF24</i>	2.5989592	1.96E-43
<i>WDR62</i>	3.0061805	9.46E-65	<i>LINC02261</i>	2.5962784	4.21E-19
<i>SMC4</i>	2.9835197	1.13E-63	<i>SUV39H1</i>	2.5951299	6.28E-24
<i>MASTL</i>	2.9784027	1.73E-55	<i>APOLD1</i>	2.5948861	1.74E-48
<i>C5orf34</i>	2.8860884	9.63E-36	<i>AC091057.6</i>	2.5932367	1.10E-36
<i>PTTG1</i>	2.8845071	2.25E-61	<i>AL031777.3</i>	2.578981	1.20E-41
<i>CCDC150</i>	2.8789843	7.70E-36	<i>CHEK2</i>	2.5584069	7.84E-39
<i>ZNF888</i>	2.877826	3.53E-07	<i>UBE2T</i>	2.5574893	5.49E-64
<i>CAMP</i>	2.8753721	0.004483	<i>AC002310.2</i>	2.5539193	7.90E-12
<i>HIST1H2AB</i>	2.859723	3.08E-29	<i>HMGB2</i>	2.5508806	5.31E-71
<i>ATP12A</i>	2.8572891	0.0034743	<i>MYBPC1</i>	2.5503448	6.71E-05
<i>TBC1D31</i>	2.84845	3.51E-48	<i>SH3BGR</i>	2.5481319	5.32E-17
<i>BRCA2</i>	2.8448001	9.34E-56	<i>RDM1</i>	2.528142	4.93E-14
<i>FBXO5</i>	2.8396253	3.30E-47	<i>REXO5</i>	2.5203376	6.79E-33
<i>FAM83D</i>	2.8332907	1.69E-41	<i>MFAP4</i>	2.5182157	1.13E-23
<i>AFAP1L1</i>	2.8297868	1.77E-22	<i>HIST1H1D</i>	2.5039846	6.11E-34
<i>AL358075.2</i>	2.8241241	0.0151267	<i>CENPN</i>	2.5012945	1.73E-64
<i>KCNG1</i>	2.8239567	1.10E-10	<i>AC016205.1</i>	2.48695	1.36E-25
<i>AP000842.3</i>	2.8225381	0.0036171	<i>MYOCD</i>	2.4861614	1.27E-05
<i>EDA2R</i>	2.7982424	0.0117953	<i>MIS18BP1</i>	2.4831347	2.18E-63
<i>TRAP</i>	2.7980001	1.45E-47	<i>PLK4</i>	2.4797296	2.05E-34
<i>CCDC18</i>	2.7893582	5.36E-50	<i>ZNF385B</i>	2.4739712	2.16E-07
<i>HIST1H3F</i>	2.7831125	1.31E-38	<i>CDCA5</i>	2.466339	2.26E-59
<i>ZNF850</i>	2.7673943	1.96E-51	<i>TNFAIP8L1</i>	2.4615085	2.48E-22
<i>AC073529.1</i>	2.7142572	9.48E-11	<i>TRIB3</i>	2.4402874	3.51E-14
<i>INHBE</i>	2.7127264	6.46E-41	<i>EMC9</i>	2.4399692	6.10E-40
<i>HIST1H2AI</i>	2.712575	2.12E-39	<i>ZNF492</i>	2.4226859	2.11E-30
<i>MITF</i>	2.6995047	0.0006969	<i>AC024132.3</i>	2.4226258	0.0014585
<i>PKMYT1</i>	2.6978982	3.63E-52	<i>HMX2</i>	2.4115536	1.01E-13
<i>NAV2-AS3</i>	2.6946158	2.30E-06	<i>AC137834.2</i>	2.4030921	9.63E-06
<i>BLM</i>	2.682452	4.12E-46	<i>AC010173.1</i>	2.3911885	0.0050118
<i>KCNK5</i>	2.6691926	0.0129141	<i>HIST2H2AA4</i>	2.3884286	1.19E-05

<i>RAD51AP1</i>	2.3869144	9.08E-51	<i>ADRB2</i>	2.1066158	6.04E-11
<i>TUBA1C</i>	2.384632	1.00E-37	<i>HIST2H4B</i>	2.1038656	8.11E-11
<i>DNA2</i>	2.3731907	7.24E-34	<i>HIST1H2AM</i>	2.098125	6.26E-18
<i>MKX</i>	2.3626402	5.91E-11	<i>EXPH5</i>	2.093912	9.94E-16
<i>AC084782.1</i>	2.3534387	6.09E-06	<i>TBXT</i>	2.0914909	2.91E-06
<i>TTF2</i>	2.3430125	1.91E-50	<i>CEP135</i>	2.089283	1.58E-29
<i>AL035681.1</i>	2.3281676	8.62E-16	<i>YBX2</i>	2.0826717	3.47E-12
<i>SPDL1</i>	2.3212763	9.46E-45	<i>MNS1</i>	2.0723741	2.83E-25
<i>RFESD</i>	2.3170976	3.34E-06	<i>AUNIP</i>	2.0587318	6.87E-12
<i>CD274</i>	2.3017104	5.06E-05	<i>COLCA2</i>	2.0535646	7.11E-06
<i>ANP32E</i>	2.2971876	7.04E-61	<i>FAM122B</i>	2.0483742	1.67E-39
<i>SLCO4A1</i>	2.2962845	0.024956	<i>NDOR1</i>	2.0483047	0.0067179
<i>CKAP5</i>	2.2804401	1.44E-36	<i>FANCI</i>	2.0457189	1.71E-32
<i>ALDH1A1</i>	2.2794902	3.11E-06	<i>FANCD2</i>	2.0454057	6.20E-38
<i>TRMU</i>	2.2683742	5.97E-33	<i>NEURL1B</i>	2.0358549	8.01E-34
<i>HAUS8</i>	2.2656267	1.89E-38	<i>DMGDH</i>	2.0306923	1.05E-14
<i>HIST1H2BL</i>	2.2595238	1.61E-24	<i>HUNK</i>	2.0203707	2.61E-32
<i>TEDC1</i>	2.2558693	5.28E-25	<i>SLC28A3</i>	2.017966	1.34E-05
<i>GDF15</i>	2.244066	8.07E-09	<i>ZNF165</i>	2.0122925	1.38E-10
<i>AL359513.1</i>	2.2410413	1.13E-24	<i>C17orf99</i>	2.0079447	0.0001183
<i>HIST1H3J</i>	2.2318193	0.0009408	<i>CALCB</i>	2.0073406	1.46E-09
<i>CCNF</i>	2.2127843	2.15E-45	<i>AL603756.1</i>	1.9997535	7.11E-05
<i>AC008543.1</i>	2.2092885	5.99E-16	<i>GREM1</i>	1.9979615	7.47E-12
<i>C21orf58</i>	2.2071454	1.52E-44	<i>MGME1</i>	1.9967037	2.42E-35
<i>NEMP1</i>	2.203393	6.24E-35	<i>CPED1</i>	1.9966335	0.0092842
<i>APOBEC3B</i>	2.2017153	1.15E-13	<i>LINC01572</i>	1.9940758	4.97E-12
<i>CD58</i>	2.2013693	9.09E-10	<i>CCDC148</i>	1.9884195	3.35E-08
<i>TNFRSF9</i>	2.1996355	0.0056716	<i>GEN1</i>	1.979557	4.97E-27
<i>ZNF695</i>	2.1923549	1.27E-27	<i>AF001548.2</i>	1.9784762	3.59E-06
<i>BFSP1</i>	2.1916694	0.0011786	<i>CENPM</i>	1.9695828	1.22E-44
<i>GLI1</i>	2.1852569	4.21E-09	<i>NCAPG2</i>	1.9625507	2.09E-33
<i>PART1</i>	2.17132	0.0002081	<i>CDC25B</i>	1.9595448	3.44E-28
<i>CENPO</i>	2.1601491	1.15E-30	<i>SRGAP2</i>	1.958908	3.00E-31
<i>C18orf54</i>	2.1583354	3.65E-32	<i>AC026401.3</i>	1.9481822	4.12E-20
<i>LIN54</i>	2.1458688	3.42E-22	<i>NDE1</i>	1.9468004	7.15E-23
<i>MYH11</i>	2.1372986	2.81E-13	<i>TNFSF15</i>	1.9445182	0.0007216
<i>ARHGAP19</i>	2.1335049	9.22E-17	<i>AP001347.1</i>	1.9417141	2.66E-13
<i>ORC6</i>	2.132758	1.30E-48	<i>AC127002.1</i>	1.9411406	0.0068138
<i>HIST1H3I</i>	2.1245088	6.54E-15	<i>AC025176.1</i>	1.9388362	0.0003782

<i>ZNF90</i>	1.9300292	7.01E-18	<i>ZSCAN31</i>	1.7642188	2.79E-09
<i>CEP128</i>	1.9284282	1.66E-21	<i>ERI2</i>	1.7608543	1.03E-14
<i>CEP70</i>	1.9237773	5.26E-21	<i>SRGAP2B</i>	1.7594256	1.76E-31
<i>PKN3</i>	1.9197294	3.10E-06	<i>SLC4A8</i>	1.7579073	4.85E-17
<i>PRSS1</i>	1.9191259	7.81E-13	<i>CEP295</i>	1.7523057	1.97E-21
<i>CKS2</i>	1.909039	2.24E-36	<i>RANGAP1</i>	1.7498934	3.81E-19
<i>DNMT3B</i>	1.9009748	4.85E-11	<i>CCDC15</i>	1.7443051	3.22E-27
<i>ZWINT</i>	1.900116	1.21E-46	<i>E2F7</i>	1.7414593	5.96E-29
<i>XRCC2</i>	1.8935274	1.09E-29	<i>GOT1</i>	1.7353013	2.17E-15
<i>MTFR2</i>	1.8872523	1.49E-17	<i>ERLIN1</i>	1.7326519	7.18E-06
<i>PLIN4</i>	1.8773885	5.61E-05	<i>FANCB</i>	1.7272571	8.55E-31
<i>BEST1</i>	1.8711376	0.0005217	<i>CABYR</i>	1.7226567	5.55E-07
<i>SRGAP2C</i>	1.8651064	1.85E-32	<i>HIST1H1C</i>	1.7216396	2.77E-32
<i>BRD8</i>	1.8632409	1.03E-30	<i>TRIM66</i>	1.7186448	1.00E-11
<i>SYNE3</i>	1.8597698	1.32E-17	<i>LMO7</i>	1.7178931	3.83E-19
<i>TLR1</i>	1.8536073	0.0099264	<i>RAD54L</i>	1.7125264	7.02E-18
<i>GALNT17</i>	1.8420316	4.14E-09	<i>CHRNA10</i>	1.7107739	0.0016312
<i>TK1</i>	1.8389556	1.76E-39	<i>LRR1</i>	1.7094886	3.27E-24
<i>LAMP3</i>	1.8357881	1.04E-09	<i>LIN9</i>	1.7084908	1.07E-19
<i>IRF8</i>	1.8319562	4.60E-06	<i>RGS5</i>	1.7071791	0.0005095
<i>AC091980.2</i>	1.8312731	0.0020279	<i>TNFRSF13C</i>	1.7027572	0.0002714
<i>ARL6IP1</i>	1.8275197	1.25E-25	<i>SLC7A3</i>	1.7007274	0.0421461
<i>ONECUT1</i>	1.8267128	0.0227885	<i>NCAPD3</i>	1.6982801	7.95E-30
<i>ATAD2</i>	1.8246676	4.11E-26	<i>CENPL</i>	1.6968032	1.87E-29
<i>BRIP1</i>	1.8149104	1.07E-22	<i>CDC25A</i>	1.6938356	2.75E-25
<i>SNAI1</i>	1.8131791	8.53E-11	<i>ACBD7</i>	1.6911801	8.61E-10
<i>MCM10</i>	1.8111693	6.45E-22	<i>DBF4B</i>	1.6871768	2.13E-14
<i>LINC01224</i>	1.8108017	1.87E-09	<i>OSBPL3</i>	1.6844691	4.85E-06
<i>TENM2</i>	1.8092832	1.76E-13	<i>UBE2S</i>	1.6839105	2.47E-51
<i>CEP192</i>	1.7948659	6.36E-31	<i>RHNO1</i>	1.6747569	1.54E-28
<i>TAF5</i>	1.7886112	8.54E-16	<i>IFFO1</i>	1.6727116	0.0477276
<i>GPC5-AS1</i>	1.7855017	2.88E-07	<i>GPSM2</i>	1.6681021	5.61E-29
<i>ARMC4</i>	1.7831922	6.77E-06	<i>ZNF536</i>	1.6668294	2.97E-19
<i>UBL7-AS1</i>	1.7789175	1.60E-16	<i>BORCS8-MEF2B</i>	1.6667218	9.16E-06
<i>HIST1H2BC</i>	1.7787277	3.15E-25	<i>LMNB2</i>	1.6653158	4.94E-31
<i>C1orf112</i>	1.7769769	1.24E-24	<i>DARS2</i>	1.6641777	7.48E-12
<i>TLX3</i>	1.775488	7.73E-21	<i>NUP37</i>	1.6527081	4.62E-16
<i>ENDOG</i>	1.7752781	2.64E-32	<i>SCLT1</i>	1.6516901	2.03E-20
<i>HIST1H2AG</i>	1.766172	1.12E-34	<i>ELMO1</i>	1.6513804	0.0043414

<i>KIF22</i>	1.6488251	8.48E-39	<i>DZIP1L</i>	1.5310547	2.42E-06
<i>CENPJ</i>	1.6429168	2.07E-24	<i>AC011447.3</i>	1.5305084	4.15E-26
<i>TESMIN</i>	1.6405399	0.0139444	<i>CRIP3</i>	1.5274395	0.041572
<i>RNF227</i>	1.6383333	1.67E-06	<i>BRCA1</i>	1.5263713	5.04E-22
<i>CCNG2</i>	1.6308605	8.75E-20	<i>FAAP24</i>	1.5256023	2.54E-13
<i>TRIM59</i>	1.630771	1.96E-21	<i>ASF1B</i>	1.5212625	4.07E-37
<i>CDCA4</i>	1.6291183	9.68E-24	<i>SCGB1B2P</i>	1.5208498	0.0005111
<i>RGS3</i>	1.6283826	2.88E-19	<i>IKZF3</i>	1.5207152	4.51E-07
<i>COL2A1</i>	1.6273524	2.75E-08	<i>EMX2</i>	1.519703	6.31E-15
<i>PKP4</i>	1.6271144	1.19E-24	<i>DRAM1</i>	1.5190436	0.0087117
<i>CACNG6</i>	1.6134864	1.65E-06	<i>DDIT4</i>	1.5170601	9.00E-15
<i>DTYMK</i>	1.609825	4.64E-39	<i>SLC7A11</i>	1.5147759	7.70E-09
<i>GTPBP2</i>	1.6024626	3.76E-17	<i>ZWILCH</i>	1.514662	3.05E-15
<i>FAM111A-DT</i>	1.6023229	1.28E-05	<i>PLXNC1</i>	1.5052584	1.96E-08
<i>CPM</i>	1.6017554	6.13E-09	<i>SLC29A3</i>	1.5046071	7.18E-05
<i>CHTF18</i>	1.5979044	1.59E-15	<i>HSD17B11</i>	1.5019264	0.0003157
<i>VRK1</i>	1.593427	3.44E-25	<i>H2AFX</i>	1.4986767	1.42E-38
<i>JAM2</i>	1.5922238	1.84E-07	<i>HMGB3</i>	1.4952844	1.57E-33
<i>PRSS2</i>	1.5876261	0.0038013	<i>PHF19</i>	1.4944662	1.14E-18
<i>FOXB1</i>	1.5858533	1.40E-08	<i>HMGB1</i>	1.4944148	1.50E-57
<i>CENPU</i>	1.5843325	3.78E-32	<i>HIST1H2BO</i>	1.4910548	2.34E-07
<i>ODF2</i>	1.5771627	1.75E-13	<i>LMNB1</i>	1.4870662	4.65E-32
<i>RIBC2</i>	1.5757573	1.36E-13	<i>ATAD5</i>	1.4807794	2.42E-18
<i>CLGN</i>	1.5734143	8.28E-14	<i>METTL4</i>	1.478934	2.42E-21
<i>MTBP</i>	1.5657875	3.67E-11	<i>MFGE8</i>	1.4698758	0.0028706
<i>ZMYM1</i>	1.5636264	5.56E-17	<i>ZNF436</i>	1.469679	3.62E-05
<i>HIST1H4B</i>	1.5608752	3.45E-06	<i>RAD21</i>	1.4667779	4.83E-49
<i>AC026250.1</i>	1.55888	0.0001736	<i>MZT1</i>	1.4634867	1.59E-28
<i>SCML2</i>	1.5560689	7.14E-16	<i>KIAA0586</i>	1.4585041	1.41E-16
<i>HIST1H2AH</i>	1.5506655	4.56E-15	<i>ACSL1</i>	1.4568369	3.20E-08
<i>BDKRB2</i>	1.5469471	1.32E-05	<i>AC022075.1</i>	1.4557556	0.008618
<i>SKA2</i>	1.54625	1.56E-31	<i>POC5</i>	1.4551035	6.25E-13
<i>UBALD2</i>	1.5462105	4.89E-28	<i>SEPHS1</i>	1.4545741	3.66E-18
<i>KPNA2</i>	1.5455483	3.64E-27	<i>MYLK</i>	1.4491059	1.77E-05
<i>MLXIPL</i>	1.539518	4.02E-07	<i>TEDC2</i>	1.4467635	5.05E-11
<i>LBR</i>	1.53807	5.98E-25	<i>PPM1E</i>	1.4464705	4.37E-16
<i>TMEM79</i>	1.5361954	4.16E-08	<i>AC120114.1</i>	1.4453771	0.0107209
<i>HRASLS</i>	1.5344309	0.0001268	<i>TSPAN19</i>	1.4442281	0.0084596
<i>SMC2</i>	1.5334488	8.33E-39	<i>FAM122C</i>	1.4439841	6.62E-10

<i>COL27A1</i>	1.4438817	0.003452	<i>RGS16</i>	1.327359	1.13E-12
<i>STK17B</i>	1.4389875	9.65E-13	<i>TMPO</i>	1.3269768	8.57E-42
<i>KBTBD2</i>	1.4379058	1.69E-16	<i>WDSUB1</i>	1.3246032	1.71E-06
<i>RNFT2</i>	1.437249	0.0004179	<i>CDH13</i>	1.3239833	0.0002462
<i>CEP152</i>	1.4346025	7.87E-21	<i>TUBA1B</i>	1.3230968	1.21E-35
<i>PAX6</i>	1.4327163	8.20E-15	<i>KCTD9</i>	1.3217471	1.47E-13
<i>HIST1H3H</i>	1.4315404	1.35E-21	<i>RCC1</i>	1.3210326	8.91E-10
<i>ARHGAP33</i>	1.4295722	1.07E-17	<i>AL035461.2</i>	1.318358	1.25E-06
<i>ULBP1</i>	1.4217592	7.43E-07	<i>SCML1</i>	1.3159081	1.33E-15
<i>ARHGEF2</i>	1.4195816	1.33E-22	<i>PILRA</i>	1.3141287	0.0090787
<i>DDX39A</i>	1.414067	5.69E-33	<i>MID1</i>	1.313368	2.14E-13
<i>G2E3</i>	1.4109439	2.95E-13	<i>MPHOSPH9</i>	1.3098101	9.50E-20
<i>CENPQ</i>	1.4092251	9.73E-21	<i>BARD1</i>	1.3074117	2.02E-13
<i>ESRP1</i>	1.4073015	3.65E-22	<i>NFKBID</i>	1.3041922	6.54E-13
<i>IL23A</i>	1.4038359	9.66E-10	<i>GSN-AS1</i>	1.2993153	0.0181179
<i>RNF26</i>	1.3980532	2.07E-09	<i>FANCM</i>	1.2988513	2.40E-09
<i>RECQL4</i>	1.3953941	2.45E-14	<i>NUCKS1</i>	1.2927953	7.17E-47
<i>ATF5</i>	1.3935044	1.09E-14	<i>SEL1L</i>	1.2909929	4.52E-10
<i>AKNA</i>	1.3913664	2.60E-08	<i>CALM2</i>	1.2848655	3.90E-45
<i>RIPPLY3</i>	1.3823086	5.87E-20	<i>CCDC34</i>	1.2842716	5.86E-24
<i>ILVBL</i>	1.3811108	0.0002887	<i>ARID5B</i>	1.2840144	3.08E-07
<i>MAG1</i>	1.3761555	1.61E-05	<i>CBR3</i>	1.2827917	4.52E-10
<i>AC091563.1</i>	1.3733725	0.005264	<i>DTL</i>	1.2825848	1.06E-13
<i>ZNF107</i>	1.3732026	1.00E-14	<i>CDK5RAP2</i>	1.2817047	6.07E-31
<i>SUV39H2</i>	1.3713402	6.04E-06	<i>FANCG</i>	1.2812611	4.86E-13
<i>FAM43A</i>	1.3684755	3.13E-11	<i>GPR83</i>	1.2797138	0.0018272
<i>BUB3</i>	1.3669742	5.95E-32	<i>CEP85</i>	1.2796756	1.02E-06
<i>SP8</i>	1.3643725	1.99E-13	<i>EPS8</i>	1.271524	6.56E-15
<i>TDP1</i>	1.3602445	1.43E-10	<i>ADD2</i>	1.2688966	9.64E-12
<i>ZNF257</i>	1.3580164	1.67E-10	<i>FAM216A</i>	1.2662118	0.0431584
<i>DDIT3</i>	1.3573971	1.88E-09	<i>HIST1H3A</i>	1.2634294	1.83E-07
<i>CENPK</i>	1.3544693	2.79E-21	<i>TMEFF2</i>	1.2627222	0.000152
<i>RFC3</i>	1.3511568	4.88E-21	<i>C2orf69</i>	1.260511	1.31E-13
<i>RAD54B</i>	1.3499638	1.27E-08	<i>PARP2</i>	1.2595234	1.26E-12
<i>COL4A2</i>	1.3472805	8.73E-06	<i>POLA2</i>	1.2582977	4.50E-13
<i>ZGRF1</i>	1.3446544	9.36E-10	<i>IFT122</i>	1.2572049	1.07E-10
<i>CRISPLD2</i>	1.3417984	9.97E-09	<i>CMC2</i>	1.2562246	1.24E-32
<i>VANGL1</i>	1.3416133	4.86E-10	<i>GIN54</i>	1.2539604	6.79E-10
<i>FBXO48</i>	1.3292761	4.35E-06	<i>NEDD4</i>	1.2525744	0.00305

<i>PLEKHG3</i>	1.2438732	0.0011531	<i>ZNF726</i>	1.1926468	3.93E-12
<i>GABPB1</i>	1.2437389	1.29E-11	<i>LINC01686</i>	1.1902179	0.0003429
<i>PCNT</i>	1.2413372	4.46E-15	<i>ADPRHL1</i>	1.1883192	2.41E-09
<i>ZNF501</i>	1.2407576	7.71E-05	<i>TMEM60</i>	1.1853232	3.17E-06
<i>GIN1</i>	1.2407157	0.0049981	<i>CDC23</i>	1.184612	8.68E-11
<i>CNTRL</i>	1.2395091	3.37E-14	<i>11-3</i>	1.1816917	0.0003025
<i>AL121944.1</i>	1.2385084	5.37E-08	<i>FAM3B</i>	1.1778069	0.0006999
<i>MCAM</i>	1.2384673	2.41E-10	<i>METTL7A</i>	1.1734214	3.21E-06
<i>BLOC1S5</i>	1.237624	2.47E-06	<i>EMX2OS</i>	1.1704697	0.0034259
<i>GTF2A1</i>	1.2359249	6.41E-13	<i>TMPO-AS1</i>	1.1691087	1.74E-09
<i>RHEBL1</i>	1.235497	0.0006635	<i>SAPCD2</i>	1.1679306	2.64E-14
<i>CWF19L1</i>	1.2329854	0.0026353	<i>ZNF724</i>	1.1678334	2.53E-16
<i>UACA</i>	1.2308135	3.89E-10	<i>RFWD3</i>	1.167006	4.81E-17
<i>LETM2</i>	1.2300556	0.0008284	<i>SRBD1</i>	1.1639273	6.53E-06
<i>AL031666.1</i>	1.2288135	0.0037054	<i>TRIM45</i>	1.1635171	2.17E-06
<i>SMOC1</i>	1.2279949	6.38E-05	<i>CDK19</i>	1.1621629	5.71E-19
<i>SIPA1L2</i>	1.226701	1.64E-08	<i>BACH2</i>	1.1603077	1.78E-11
<i>P4HA2</i>	1.2266255	0.0368832	<i>RCCD1</i>	1.1580525	2.05E-06
<i>CEBPG</i>	1.2259653	3.33E-17	<i>PAK4</i>	1.1570154	4.96E-12
<i>VEGFA</i>	1.2231625	1.48E-08	<i>INSM1</i>	1.155272	4.37E-23
<i>PKIB</i>	1.2227805	0.0002054	<i>SAE1</i>	1.1550943	1.76E-16
<i>EFCAB11</i>	1.2227324	3.36E-11	<i>ZNF273</i>	1.1526303	1.51E-09
<i>MYO5C</i>	1.2227027	0.0061113	<i>JADE1</i>	1.1493092	5.17E-13
<i>ADM</i>	1.2194342	1.47E-07	<i>NLRP11</i>	1.147212	0.0361397
<i>CSE1L</i>	1.2190804	1.10E-16	<i>ZCCHC8</i>	1.147196	2.50E-11
<i>RBM15</i>	1.2174109	1.04E-12	<i>RHEB</i>	1.1467159	7.48E-36
<i>GINS1</i>	1.2172836	9.20E-10	<i>RAI2</i>	1.1466696	0.000131
<i>E2F2</i>	1.2149666	5.31E-07	<i>FBXL18</i>	1.1461014	0.0070042
<i>HIST1H2BN</i>	1.2119821	1.57E-16	<i>ZNF519</i>	1.1455398	6.15E-12
<i>HMGN5</i>	1.2106166	3.18E-07	<i>OSER1-DT</i>	1.1434952	0.0019831
<i>AP000251.1</i>	1.2098049	0.0015281	<i>PTX3</i>	1.1433695	0.0001562
<i>CCDC77</i>	1.2038296	1.18E-15	<i>ELOVL2</i>	1.1425501	2.14E-07
<i>FAM129A</i>	1.2035625	1.40E-07	<i>NUP35</i>	1.1416444	2.13E-06
<i>ZNF85</i>	1.1959175	4.24E-13	<i>PCLAF</i>	1.1406779	4.50E-15
<i>XPOT</i>	1.195886	1.41E-12	<i>MCM8</i>	1.1389962	8.47E-11
<i>PIGK</i>	1.1953501	1.43E-07	<i>RGS7BP</i>	1.1378634	5.97E-05
<i>TUBB4B</i>	1.1948246	7.57E-24	<i>AC010327.4</i>	1.1372715	0.0002442
<i>NAV2</i>	1.1945463	7.80E-10	<i>NEFH</i>	1.1353189	5.65E-07
<i>LARP6</i>	1.1930588	1.25E-10	<i>SPATA5</i>	1.1334159	0.0004275

<i>CSTF1</i>	1.1311841	1.92E-06	<i>FAM110A</i>	1.0704116	3.26E-09
<i>RRM1</i>	1.1291228	4.69E-16	<i>TRIM69</i>	1.0702012	1.26E-05
<i>HIST1H1E</i>	1.1287885	1.13E-13	<i>AC004943.2</i>	1.0690377	5.83E-05
<i>GTF2E1</i>	1.1244069	0.0374935	<i>HIST1H4D</i>	1.0688157	0.002047
<i>SYCE2</i>	1.1243616	0.0018721	<i>SDC3</i>	1.0681547	0.0001841
<i>BTBD10</i>	1.124263	1.54E-08	<i>HIST1H2BH</i>	1.0646736	8.70E-36
<i>RASSF1</i>	1.1135532	4.83E-09	<i>SGTB</i>	1.0606492	2.19E-07
<i>PSAT1</i>	1.1127388	4.01E-10	<i>EXO5</i>	1.0589094	7.51E-05
<i>TGIF1</i>	1.1092551	1.69E-06	<i>CPOX</i>	1.0579626	0.0001542
<i>SPA17</i>	1.1086435	1.51E-08	<i>ZNF597</i>	1.0556241	0.0341443
<i>FHOD3</i>	1.1083653	8.38E-07	<i>NCAM1</i>	1.0547153	1.49E-11
<i>AC097534.2</i>	1.1080576	8.21E-09	<i>ZNF700</i>	1.0526137	2.42E-06
<i>ZNF530</i>	1.1073653	7.28E-06	<i>XYLT1</i>	1.0512642	5.63E-05
<i>MYBL2</i>	1.1059456	2.33E-10	<i>DCLRE1C</i>	1.0510736	2.12E-11
<i>AL355488.1</i>	1.1057509	0.012894	<i>ERAP2</i>	1.0494479	1.78E-05
<i>WDR53</i>	1.1044584	5.67E-05	<i>CCDC151</i>	1.0478443	0.0070797
<i>TUBB</i>	1.1043589	1.58E-31	<i>ZNF823</i>	1.0464451	2.30E-05
<i>AC108860.2</i>	1.1029544	0.0021655	<i>POU3F2</i>	1.0462648	3.49E-14
<i>DZIP3</i>	1.1001745	1.19E-07	<i>MMD</i>	1.0455923	0.0104486
<i>CALN1</i>	1.0986039	0.0205749	<i>PIGN</i>	1.045402	0.000133
<i>PDIK1L</i>	1.0954172	0.0328771	<i>DYRK4</i>	1.0445689	4.26E-05
<i>DHRS7B</i>	1.0937935	0.0014659	<i>NUP205</i>	1.0444334	2.41E-06
<i>TLNRD1</i>	1.0902222	2.44E-07	<i>TGFB2</i>	1.0422486	7.74E-08
<i>CNTROB</i>	1.089365	1.14E-08	<i>STAC3</i>	1.0393668	0.0473993
<i>C12orf4</i>	1.0867824	3.77E-08	<i>CTCF</i>	1.0393078	1.98E-18
<i>NDC1</i>	1.0855439	9.14E-07	<i>GPR19</i>	1.0391462	3.28E-05
<i>GOS2</i>	1.0851638	0.003996	<i>FZR1</i>	1.0370567	4.18E-09
<i>THAP10</i>	1.0849835	3.58E-07	<i>CEP57L1</i>	1.0359314	5.41E-08
<i>DMRTA2</i>	1.0848722	3.31E-07	<i>MEIS2</i>	1.0357553	0.0004462
<i>MIS18A</i>	1.0846624	1.45E-11	<i>AL441992.1</i>	1.0347236	9.83E-05
<i>C12orf65</i>	1.0820407	1.76E-12	<i>NEDD1</i>	1.0346724	1.55E-06
<i>CENPH</i>	1.081905	6.39E-16	<i>SREBF1</i>	1.0343517	6.19E-06
<i>CFLAR</i>	1.0770411	3.19E-09	<i>SUN2</i>	1.0335255	1.02E-09
<i>PPP2R3B</i>	1.0766123	2.44E-12	<i>GADD45A</i>	1.0322262	5.29E-08
<i>RTP1</i>	1.074596	5.85E-05	<i>RBL1</i>	1.0319837	2.40E-05
<i>ZSCAN16</i>	1.0745659	5.92E-06	<i>DAND5</i>	1.0307626	3.52E-06
<i>AC008397.2</i>	1.0725336	0.0030807	<i>CARD8</i>	1.0303262	2.06E-08
<i>PYCARD-AS1</i>	1.0710832	0.0113309	<i>AC130324.3</i>	1.0301408	0.0024083
<i>HACD2</i>	1.0706238	3.84E-11	<i>KMT5A</i>	1.0285262	1.44E-11

<i>CBX4</i>	1.0254877	0.0027853
<i>TMEM237</i>	1.0245935	2.61E-07
<i>GINS3</i>	1.0217518	2.07E-06
<i>MSX1</i>	1.0198884	5.31E-09
<i>CDKN2B-AS1</i>	1.0193691	9.20E-10
<i>IKBIP</i>	1.0170621	1.64E-06
<i>SPTSSB</i>	1.0169803	0.0062631
<i>DSCC1</i>	1.0168659	6.81E-13
<i>SEPSECS-AS1</i>	1.0145634	7.54E-06
<i>CMYA5</i>	1.0144505	0.0222635
<i>HIST1H2AE</i>	1.0140898	6.93E-15
<i>CDKN1B</i>	1.0136755	1.31E-19
<i>HPS1</i>	1.0116263	0.0024177
<i>ZNF93</i>	1.009887	1.69E-12
<i>ZNF682</i>	1.005663	1.96E-10
<i>TRAF2</i>	1.0040022	0.0007203
<i>TATDN3</i>	1.0015174	0.000263
<i>PCK2</i>	1.0002457	1.15E-05

Supplemental Table 3. Gene lists which were significantly downregulated (A) or upregulated (B) after KIFC1 knockdown.

A			<i>PNMA8B</i>	-1.024	0.022
			<i>PCDHGA1</i>	-1.011	0.048
			<i>MEX3A</i>	-1	<0.001
			<i>TCP11L1</i>	-0.994	<0.001
			<i>APCDD1</i>	-0.989	<0.001
			<i>SNCB</i>	-0.981	0.005
			<i>DENND10</i>	-0.973	<0.001
			<i>PCDH12</i>	-0.973	0.042
			<i>LOC101929519</i>	-0.919	0.026
			<i>ZNF271P</i>	-0.914	<0.001
			<i>CEP170</i>	-0.911	0.003
			<i>ATP1B1</i>	-0.902	<0.001
			<i>IFNGR2</i>	-0.893	0.005
			<i>BLACAT1</i>	-0.891	0.019
			<i>CD2AP</i>	-0.891	<0.001
			<i>MIR4517</i>	-0.887	0.049
			<i>PPARD</i>	-0.868	0
			<i>STXBP6</i>	-0.861	0.002
			<i>TENT4B</i>	-0.852	<0.001
			<i>GNB1L</i>	-0.848	0.005
			<i>LOC105376780</i>	-0.847	0.045
			<i>CMTM1</i>	-0.839	0.034
			<i>ZDHHC12-DT</i>	-0.839	0.046
			<i>SPATA46</i>	-0.838	0.025
			<i>GNG2</i>	-0.836	<0.001
			<i>XKRX</i>	-0.832	0.001
			<i>IQSEC3</i>	-0.829	0.009
			<i>HSF1</i>	-0.827	<0.001
			<i>CTDNEP1</i>	-0.817	<0.001
			<i>CCDC92</i>	-0.806	0.017
			<i>MIRTFB</i>	-0.805	<0.001
			<i>ADAMTS20</i>	-0.804	0.02
			<i>PPM1F</i>	-0.797	<0.001
			<i>ALG2</i>	-0.795	<0.001
			<i>SLC6A14</i>	-0.791	0.027
			<i>WNT5B</i>	-0.784	<0.001
			<i>APOL4</i>	-0.781	0.024
Gene	log2FoldChange	p value			
<i>KIFC1</i>	-3.87	0.003			
<i>BCYRN1</i>	-3.089	0.001			
<i>NPEPPSP1</i>	-3.005	<0.001			
<i>ARL17B</i>	-2.856	0.027			
<i>FLOT1</i>	-2.825	0.025			
<i>CWC25</i>	-2.729	0.001			
<i>HRAS</i>	-2.545	0.007			
<i>GTPBP6</i>	-2.487	<0.001			
<i>NAIP</i>	-2.443	0.008			
<i>SMN1</i>	-2.385	0.008			
<i>UBR7</i>	-2.158	<0.001			
<i>PIP4K2B</i>	-2.152	<0.001			
<i>NBL1</i>	-1.984	0.049			
<i>PLPPR1</i>	-1.897	0.038			
<i>LOC101928882</i>	-1.87	0.008			
<i>LOC100289333</i>	-1.65	0.05			
<i>GOLGA6L9</i>	-1.538	0.013			
<i>LOC441081</i>	-1.383	0.045			
<i>PMM1</i>	-1.323	<0.001			
<i>TNFSF15</i>	-1.31	0.017			
<i>LOC101928596</i>	-1.31	<0.001			
<i>LRP4-AS1</i>	-1.285	0.025			
<i>MEIG1</i>	-1.241	0.047			
<i>GLYATL1</i>	-1.232	0.049			
<i>DNAAF5</i>	-1.23	<0.001			
<i>SEMA5B</i>	-1.211	0.013			
<i>KIZ-AS1</i>	-1.21	0.013			
<i>TMEFF2</i>	-1.177	<0.001			
<i>CLCN5</i>	-1.144	<0.001			
<i>ADAM10</i>	-1.115	<0.001			
<i>NALCN-AS1</i>	-1.083	0.046			
<i>INTS4P2</i>	-1.076	0.011			
<i>KLRG1</i>	-1.037	0.019			
<i>CPEB4</i>	-1.03	<0.001			

<i>SMC1A</i>	-0.776	<0.001	<i>PEMT</i>	-0.652	<0.001
<i>ZXDA</i>	-0.771	0	<i>KCND3</i>	-0.651	0.023
<i>PIK3C2B</i>	-0.761	0.002	<i>CASC9</i>	-0.648	0.002
<i>PIM1</i>	-0.757	<0.001	<i>DLGAP3</i>	-0.647	<0.001
<i>PARP2</i>	-0.754	<0.001	<i>CMTM4</i>	-0.645	<0.001
<i>LINC00294</i>	-0.754	<0.001	<i>ZSWIM6</i>	-0.645	<0.001
<i>TMEM245</i>	-0.754	<0.001	<i>PCDHB5</i>	-0.643	<0.001
<i>MPZL3</i>	-0.744	<0.001	<i>ITGBL1</i>	-0.64	0.005
<i>MFAP3</i>	-0.744	<0.001	<i>FAM227A</i>	-0.638	0.003
<i>SLC32A1</i>	-0.739	0.03	<i>TP53RK</i>	-0.635	<0.001
<i>ANGPT2</i>	-0.735	<0.001	<i>ZFP36L1</i>	-0.635	0.044
<i>RUFY1</i>	-0.735	<0.001	<i>NEK10</i>	-0.633	0.026
<i>TRAF4</i>	-0.725	<0.001	<i>ZC3H6</i>	-0.629	<0.001
<i>CPOX</i>	-0.723	<0.001	<i>NRIP3</i>	-0.628	<0.001
<i>RSAD2</i>	-0.722	0.031	<i>MLLT11</i>	-0.627	<0.001
<i>FOXP4</i>	-0.719	<0.001	<i>UGT8</i>	-0.624	<0.001
<i>RNF38</i>	-0.717	<0.001	<i>ATP10D</i>	-0.624	0.001
<i>TGFB2</i>	-0.717	<0.001	<i>C5</i>	-0.623	0.009
<i>MXD1</i>	-0.709	<0.001	<i>NDFIP2</i>	-0.62	<0.001
<i>SH3PXD2B</i>	-0.708	<0.001	<i>BCL2L13</i>	-0.617	<0.001
<i>U2AF1</i>	-0.707	0.008	<i>KLHL28</i>	-0.617	0.001
<i>DENND10P1</i>	-0.706	0.046	<i>DNAH1</i>	-0.614	0.009
<i>PTPRJ</i>	-0.703	<0.001	<i>RNF26</i>	-0.613	<0.001
<i>EP400P1</i>	-0.702	0.008	<i>CBX4</i>	-0.612	<0.001
<i>FOXB1</i>	-0.699	0.014	<i>BRD3</i>	-0.607	<0.001
<i>SLC40A1</i>	-0.69	0.024	<i>TNR</i>	-0.607	0.046
<i>RNF152</i>	-0.69	<0.001	<i>XKR7</i>	-0.606	0.004
<i>SUSD1</i>	-0.687	<0.001	<i>SVBP</i>	-0.605	0.005
<i>BDNF</i>	-0.681	0.024	<i>VEPH1</i>	-0.601	0.042
<i>SGMS1</i>	-0.678	0.001	<i>RPS6KA2</i>	-0.601	<0.001
<i>LINC00391</i>	-0.674	0.014	<i>ST6GALNAC5</i>	-0.599	<0.001
<i>NBPF1</i>	-0.673	0.005	<i>ACSL4</i>	-0.597	<0.001
<i>STARD4AS1</i>	-0.672	0.019	<i>SHANK3</i>	-0.597	<0.001
<i>TMEM30B</i>	-0.672	<0.001	<i>PLCXD2</i>	-0.597	0.049
<i>ZDHHC4</i>	-0.672	<0.001	<i>GALNT16</i>	-0.594	0.007
<i>MTCL1</i>	-0.669	<0.001	<i>SLC5A3</i>	-0.59	0.002
<i>CCN2</i>	-0.665	0.004	<i>IPP</i>	-0.589	0.034
<i>CELF5</i>	-0.662	0.009	<i>PLD1</i>	-0.587	0.006
<i>RAD1</i>	-0.66	<0.001			

B

Gene	log2FoldChange	pvalue			
<i>IGHV3-22</i>	3.956	<0.001	<i>HSPA6</i>	1.236	0.019
<i>IFI27L1</i>	2.95	<0.001	<i>TRDN</i>	1.229	0.023
<i>NTAN1</i>	2.937	0.025	<i>SLCO4A1</i>	1.205	0.05
<i>HERC2P10</i>	2.721	0.004	<i>FER1L6</i>	1.196	0.003
<i>DHRS11</i>	2.334	0.006	<i>SLC6A4</i>	1.143	0.05
<i>RNH1</i>	2.254	<0.001	<i>SERF1A</i>	1.137	0.043
<i>CACNG2</i>	2.204	0.029	<i>MYO7B</i>	1.135	0.006
<i>MYL11</i>	2.118	0.008	<i>AWAT1</i>	1.101	0.029
<i>PBX2</i>	2.041	0.028	<i>SLC25A18</i>	1.1	0.026
<i>CHGA</i>	1.995	0.003	<i>CKM</i>	1.075	0.007
<i>LINC01727</i>	1.957	0.035	<i>PNOC</i>	1.069	0.02
<i>RSPH6A</i>	1.956	0.039	<i>SYPL1</i>	1.057	<0.001
<i>GJB2</i>	1.949	0.013	<i>PLCXD1</i>	1.046	0.001
<i>JDP2</i>	1.938	0.003	<i>MUC13</i>	1.038	<0.001
<i>ZAN</i>	1.922	0.041	<i>LMLN</i>	1.036	<0.001
<i>AKT3</i>	1.872	0.022	<i>CELF2</i>	1.018	<0.001
<i>SNORD3A</i>	1.83	0.046	<i>C20orf204</i>	0.996	0.002
<i>GRAMD1C</i>	1.792	0.009	<i>MYT1</i>	0.993	0.03
<i>KRT15</i>	1.77	<0.001	<i>NMB</i>	0.961	0.022
<i>CCND2</i>	1.758	0.01	<i>MT1G</i>	0.946	0.009
<i>AXL</i>	1.708	0.046	<i>SPRYD4</i>	0.944	<0.001
<i>PDE2A</i>	1.598	0.043	<i>EIF5A2</i>	0.937	0.002
<i>MOAP1</i>	1.567	0.003	<i>UAP1L1</i>	0.936	<0.001
<i>LYSET</i>	1.523	0.044	<i>LDHA</i>	0.932	<0.001
<i>LINC01170</i>	1.512	0.022	<i>OR51E1</i>	0.928	<0.001
<i>KANSL1</i>	1.512	<0.001	<i>CD3G</i>	0.925	0.021
<i>LY6E</i>	1.477	0.01	<i>CRLF1</i>	0.923	0.001
<i>LINC00920</i>	1.477	0.039	<i>RAB7A</i>	0.918	<0.001
<i>KLHL6</i>	1.433	0.028	<i>AFM</i>	0.914	0.01
<i>RBM47</i>	1.352	<0.001	<i>HNF4G</i>	0.908	<0.001
<i>LINC02523</i>	1.315	0.019	<i>HECW2-AS1</i>	0.902	0.001
<i>GP5</i>	1.305	0.044	<i>MLLT6</i>	0.897	<0.001
<i>BEST1</i>	1.293	0.009	<i>HTR1D</i>	0.892	<0.001
<i>TMC8</i>	1.284	0.046	<i>MBOAT7</i>	0.889	0.022
<i>CD19</i>	1.282	0.042	<i>SLC6A20</i>	0.884	0.009
<i>ASB5</i>	1.267	0.017	<i>SERPINB9</i>	0.877	0.039
<i>TNFRSF18</i>	1.253	0.032	<i>RPLP0</i>	0.874	<0.001
			<i>CYRIB</i>	0.856	<0.001
			<i>YBX3</i>	0.847	<0.001

<i>CLDN18</i>	0.847	<0.001	<i>RAI2</i>	0.698	<0.001
<i>LAD1</i>	0.84	<0.001	<i>FBXO27</i>	0.697	<0.001
<i>BAIAP3</i>	0.838	0.006	<i>JADE2</i>	0.695	<0.001
<i>TRNT</i>	0.836	0.025	<i>CNGA4</i>	0.692	0.002
<i>TNFRSF19</i>	0.833	<0.001	<i>BRD2</i>	0.69	0.017
<i>HSPB1</i>	0.831	<0.001	<i>FBXO8</i>	0.687	<0.001
<i>TAMALIN</i>	0.823	0	<i>SNORA32</i>	0.687	0.031
<i>FZD8</i>	0.82	0.019	<i>SAMD11</i>	0.687	0.016
<i>NR0B2</i>	0.82	0.015	<i>CSKMT</i>	0.686	0.028
<i>HECTD2-AS1</i>	0.819	0.015	<i>DLL4</i>	0.686	<0.001
<i>KCNK16</i>	0.815	<0.001	<i>TESC</i>	0.685	<0.001
<i>LOC102724594</i>	0.814	0.028	<i>PRR22</i>	0.683	0.023
<i>TMEM123</i>	0.809	<0.001	<i>UBE2D1</i>	0.682	<0.001
<i>BMPER</i>	0.808	0.019	<i>TMEM37</i>	0.68	0.005
<i>SECTM1</i>	0.803	0.036	<i>ABHD16B</i>	0.68	0.043
<i>GPR37L1</i>	0.8	0.037	<i>VPS26A</i>	0.676	<0.001
<i>H2BC12</i>	0.795	<0.001	<i>ZNF296</i>	0.669	0.009
<i>SRPRA</i>	0.795	<0.001	<i>COL16A1</i>	0.668	0.011
<i>FBXO33</i>	0.794	<0.001	<i>SETD7</i>	0.658	<0.001
<i>C16orf74</i>	0.784	0.019	<i>CASP8</i>	0.654	0.047
<i>MPRIIP</i>	0.779	<0.001	<i>MT1X</i>	0.648	0.006
<i>RHOU</i>	0.776	<0.001	<i>CEP57</i>	0.647	<0.001
<i>SQOR</i>	0.775	<0.001	<i>CBLN2</i>	0.645	0.002
<i>LOC102724112</i>	0.773	0.009	<i>CYP1A1</i>	0.643	0.022
<i>PM20D2</i>	0.771	<0.001	<i>SMIM20</i>	0.64	<0.001
<i>TLCD3B</i>	0.771	<0.001	<i>PDK4</i>	0.639	0.006
<i>ITPK1</i>	0.769	0.004	<i>PRRG4</i>	0.638	0.02
<i>INTS14</i>	0.762	<0.001	<i>HOXB9</i>	0.638	0.005
<i>RHPN2</i>	0.746	<0.001	<i>ATAD3C</i>	0.638	0.009
<i>VKORC1L1</i>	0.745	<0.001	<i>TCEAL8</i>	0.637	<0.001
<i>SELENOW</i>	0.744	<0.001	<i>LRRC1</i>	0.635	<0.001
<i>GDF15</i>	0.742	<0.001	<i>FOXP2</i>	0.635	<0.001
<i>NFATC2</i>	0.738	0.003	<i>AHNAK</i>	0.635	0.012
<i>FJX1</i>	0.735	<0.001	<i>TPM3</i>	0.634	<0.001
<i>TMEM243</i>	0.731	<0.001	<i>GLTP</i>	0.634	<0.001
<i>GRAMD4</i>	0.719	0.008	<i>TSPAN1</i>	0.634	0.002
<i>LINC02418</i>	0.718	0.002	<i>BAALC</i>	0.633	<0.001
<i>ERV571-1</i>	0.714	0.01	<i>ARHGEF4</i>	0.633	0.004
<i>GJB1</i>	0.699	<0.001	<i>HOXB6</i>	0.628	0.003

<i>STK32A</i>	0.627	0.001
<i>STX1B</i>	0.623	0.001
<i>HDAC1</i>	0.623	<0.001
<i>SLC38A3</i>	0.62	<0.001
<i>NKX2-2</i>	0.613	<0.001
<i>GRAMD2B</i>	0.613	0.001
<i>SON</i>	0.611	<0.001
<i>PRKAA1</i>	0.61	<0.001
<i>TASP1</i>	0.609	0.001
<i>RBFOX1</i>	0.607	0.001
<i>EEF1AKMT3</i>	0.607	0.002
<i>ZNF488</i>	0.605	<0.001
<i>TTK</i>	0.604	<0.001
<i>KCNA2</i>	0.603	0.003
<i>DOK7</i>	0.598	0.008
<i>XPR1</i>	0.597	<0.001
<i>SLC43A1</i>	0.596	<0.001
<i>C2orf88</i>	0.593	0.044
<i>TPM2</i>	0.591	0.028
<i>IGFBP5</i>	0.591	<0.001
<i>CXCL14</i>	0.589	0.001
<i>CREB3L2</i>	0.589	<0.001
<i>AMACR</i>	0.589	0.022