Bioinformatics Analysis of Global Proteomic and Phosphoproteomic Data Sets Revealed Activation of NEK2 and AURKA in Cancers

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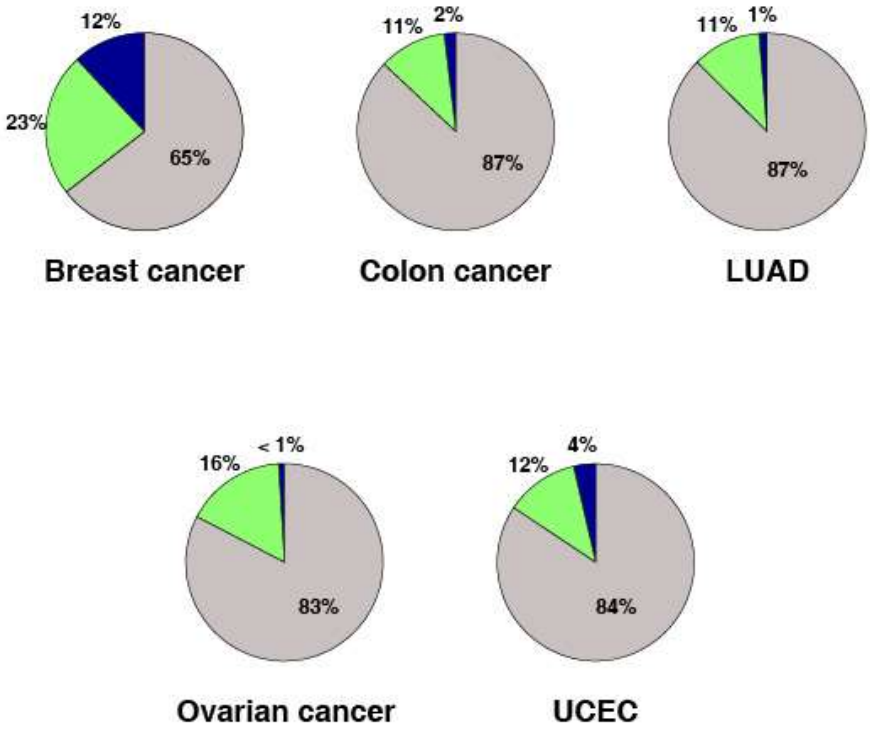

Figure S1: The percentage of phosphosites identified across 5 cancer types (breast cancer, colon cancer, LUAD, ovarian cancer and UCEC). Grey, green and blue represent the percentage of serine, threonine and tyrosine sites respectively.

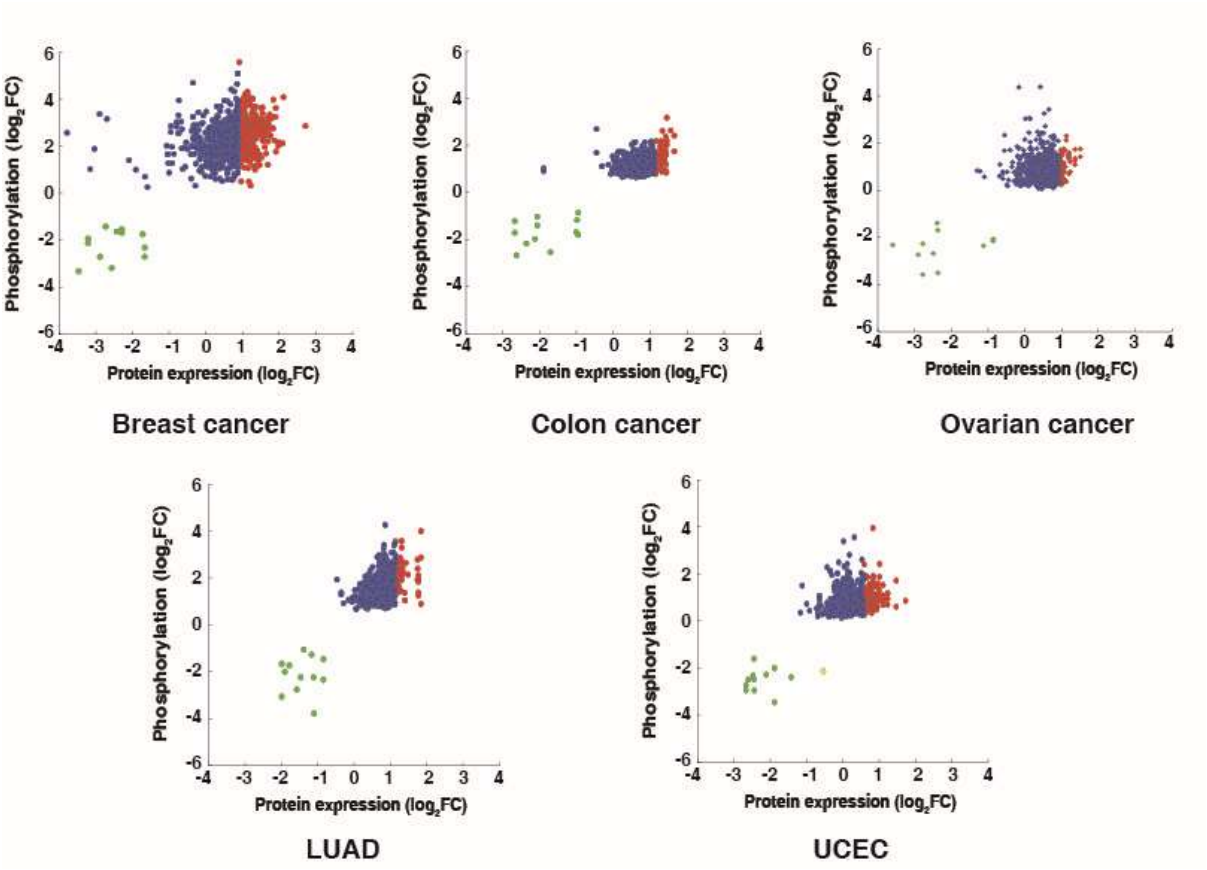

Figure S2: Quadrant plot representing the dysregulated phosphopeptides across 5 cancer types and their corresponding protein expressions.

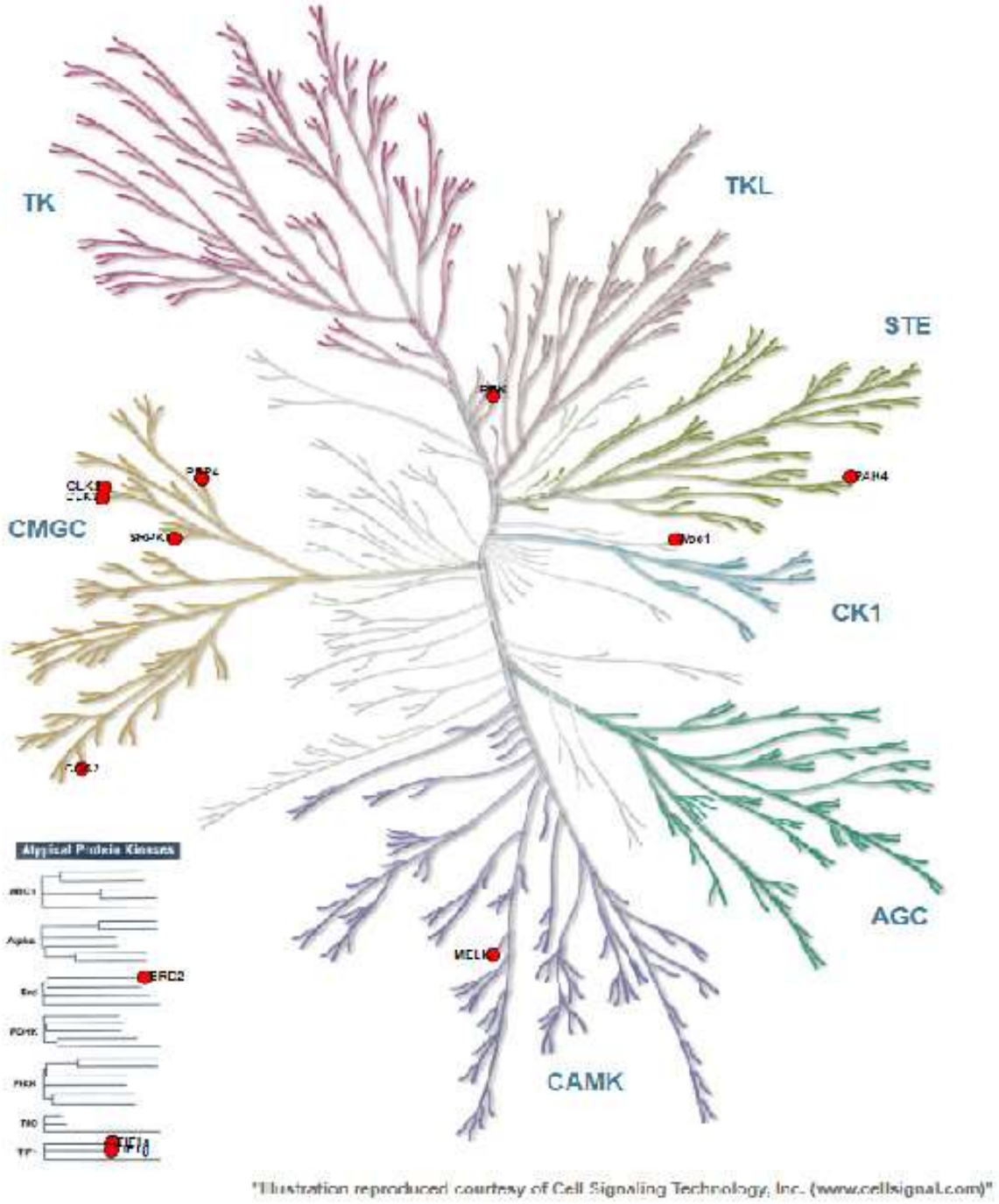

Figure S3: Kinome map depicting the identified kinases in the dataset. Kinases are highlighted as in the inset legend. The map was built using the KinMap tool. Illustration reproduced courtesy of Cell Signaling Technology, Inc. (www.cellsignal.com).

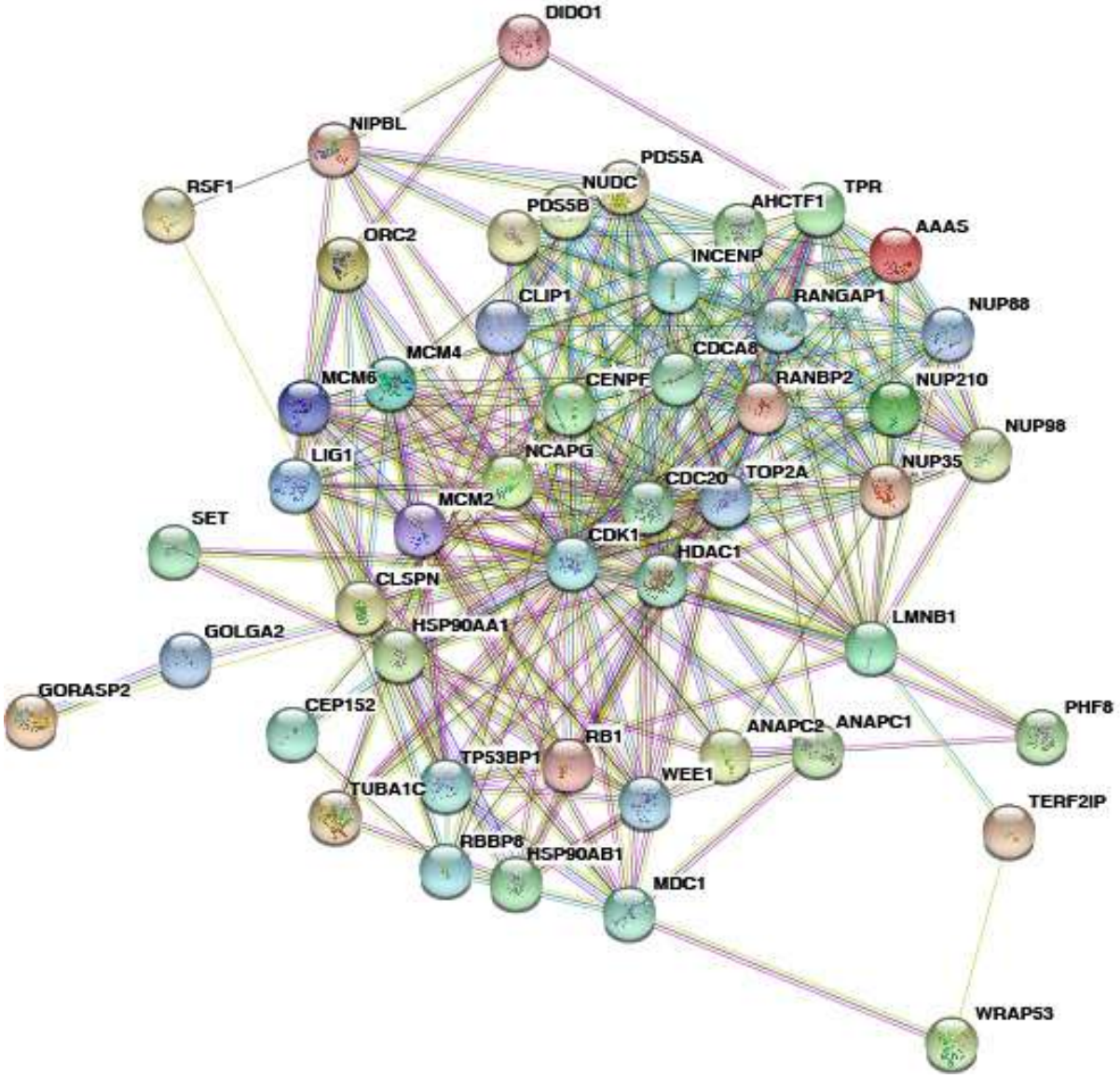

Figure S4: Protein-protein interaction network showing the interaction among 48 proteins involved in cell cycle pathway with highest confidence (0.90) acquired using STRING functional protein association network tool.

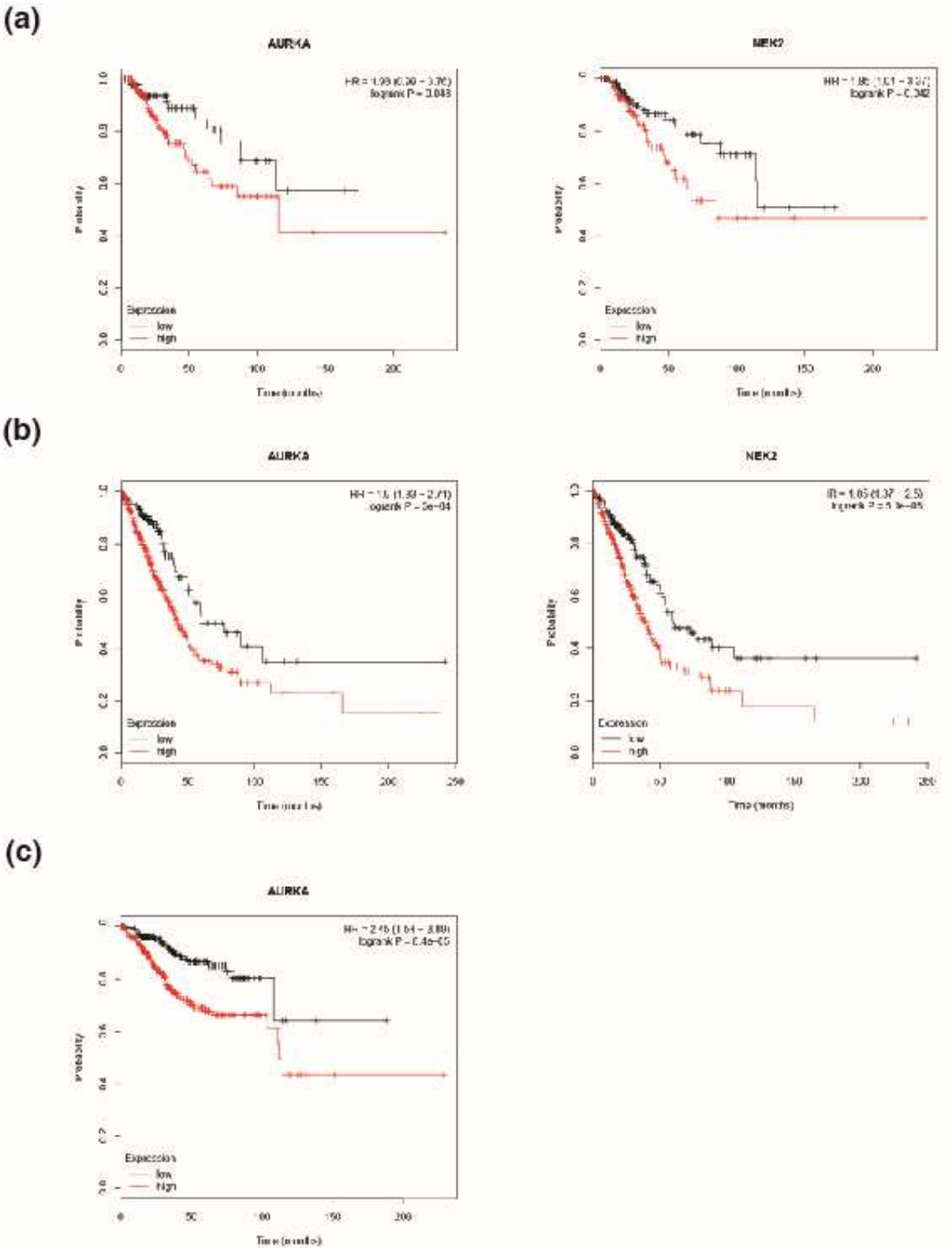

Figure S5: Kaplan-Meier plot for (a) breast cancer, (b) LUAD and (c) UCEC patients stratified according to high and low expression of AURKA and NEK2.

Deb et al., 2019. Integrative global proteomic and phosphoproteomic datasets revealed activation of NEK2 and AURKA in cancer

Supplementary tables

Table S1: Dysregulated phosphosites (1.5 fold) across the 6 cancer types

Protein ID	Site	Breast Cancer (FC)	Colon Cancer (FC)	Lung Adenocarcinoma (FC)	Ovarian Cancer (FC)	Clear Cell Renal Cell Carcinoma (FC)	Uterine Corpus Endometrial Carcinoma (FC)
ATRX	S1352	6.01	1.88	2.32	2.49	0.58	4.08
HBA1	S132	0.15	0.45	0.34	0.50	2.10	0.36
POLR2A	S1917	11.35	1.92	2.67	1.52	0.61	1.88
POLR2A	S1931	11.35	1.92	2.67	1.52	0.61	1.88
CHD3	T1611	9.02	1.81	3.06	3.81	0.42	3.52
RHBDF2	S148	5.25	1.86	1.62	2.78	2.17	2.33
TMCC1	S382	4.79	1.74	2.66	1.96	2.07	3.68
CANX	S554	11.16	1.91	1.98	3.00	3.28	0.51
CANX	S564	12.00	1.67	2.37	3.76	2.70	0.51
CANX	T562	11.22	1.79	1.83	3.62	2.70	0.51
ARFIP1	S39	14.80	1.70	3.60	3.03	0.55	2.41
FOXK1	S213	5.45	3.78	3.08	4.42	2.27	2.60
FOXK1	S223	9.41	3.78	3.70	4.65	2.27	2.09
SRSF5	S120	4.29	2.66	2.57	2.38	0.55	2.53
SPP1	S219	8.66	1.76	3.49	1.95	0.35	3.08
SPP1	S234	14.32	4.14	4.59	2.50	0.21	2.45
SPP1	S254	4.89	2.09	10.09	5.67	0.20	2.62
SPP1	S258	6.16	2.52	5.67	4.12	0.17	4.15
SPP1	S263	6.86	2.14	8.40	5.67	0.17	2.58
SPP1	S267	5.96	2.83	5.79	40.88	0.17	2.75
ACBD5	S156	12.42	1.97	9.03	1.72	0.45	1.93
CARHSP1	S30	3.73	1.77	2.24	2.89	2.23	1.81
CARHSP1	S32	2.70	1.77	2.19	2.99	2.23	1.95
RERE	S679	4.78	1.78	2.21	2.98	0.44	3.10
MYH14	S1997	9.51	1.88	2.48	1317.20	0.45	2.62
TLE3	S205	6.33	2.09	2.79	2.13	2.16	1.90
DDX54	S782	9.15	2.75	2.73	2.01	1.77	2.34
NDRG1	S332	2.91	2.25	2.27	2.37	2.32	2.25
TCOF1	S1339	8.82	2.01	3.58	0.64	1.72	2.07
TCOF1	S156	15.21	4.12	5.63	4.01	2.31	2.54
RCOR3	S433	5.62	1.87	1.58	2.34	0.60	0.58
RCOR3	T434	5.62	1.89	1.75	2.34	0.60	0.53

TP53BP1	S1072	13.12	2.23	3.26	2.59	1.74	6.08
TP53BP1	S1683	20.77	2.56	5.34	5.58	1.73	3.59
PPP1R13L	S134	6.72	1.88	2.06	2.27	1.77	2.01
ZNF652	S100	3.62	2.77	2.66	14.99	0.41	2.24
KDM3A	S463	12.21	2.19	6.92	1.82	3.05	2.60
SLC25A5	S42	6.51	1.89	2.97	2.53	0.27	1.73
HTATSF1	S616	13.35	2.19	2.75	2.75	0.44	2.81
VDAC2	S130	7.37	2.32	2.64	2.49	1.77	2.17
MATR3	S604	10.28	2.20	3.04	2.49	0.60	2.02
SRSF2	S189	5.45	2.17	2.75	3.83	0.31	2.01
PPP1R12B	S17	1.71	0.52	1.52	2.28	0.59	0.11
DPYSL3	T623	4.15	0.51	2.29	2.57	1.99	0.42
KCNAB2	S9	5.10	1.84	2.03	1.86	1.82	1.67
RBM15	S674	4.15	2.20	2.25	1.83	0.48	1.68
SLC20A2	S256	7.96	2.11	3.04	1.68	0.42	3.10
CDC20	S41	7.33	2.04	5.46	2.97	2.23	2.51
TJP3	S112	21.02	2.85	2.18	2.45	0.15	2.43
TJP3	S319	11.21	1.85	2.27	3.26	0.23	4.58
TJP3	S327	8.53	2.06	1.95	3.26	0.54	6.50
DOCK7	S900	4.13	1.65	3.60	3.48	0.56	2.42
FARP1	S920	5.65	1.72	2.06	1.82	0.55	3.75
TEX2	S790	6.54	1.77	1.59	2.29	1.62	2.16
HSH2D	S137	8.03	2.07	3.08	2.18	2.29	3.12
BAZ2A	S1768	10.93	2.38	2.33	4.41	1.66	3.80
BCLAF1	S288	6.18	2.00	2.23	2.98	0.58	2.24
BCLAF1	S387	11.08	1.92	2.31	2.93	0.59	3.13
SRRM1	S768	8.43	2.02	3.28	2.23	0.53	2.38
CAD	S1796	4.33	2.44	3.79	2.17	1.99	1.91
HMGA1	S36	6.23	2.44	2.23	3.70	0.48	2.34
SNX27	S51	3.82	2.43	2.57	1.87	0.49	1.86
PPP1R35	S52	4.29	1.72	1.89	3.87	1.78	1.86
CRYBG1	S22	4.46	3.19	2.35	0.46	0.43	2.09
ARVCF	S343	3.43	2.61	2.24	2.21	0.42	2.42

ATP2B1	S1182	7.29	1.81	2.00	9.28	0.51	2.13
CAV1	S37	0.46	0.39	0.15	0.09	3.43	0.21
DES	S28	0.39	0.48	0.25	0.26	0.38	0.50
DES	S32	0.34	0.34	0.00	0.26	0.45	0.28
DSG2	S701	14.71	2.33	7.35	4.50	1.94	3.87
ITPR3	S2670	3.05	1.94	1.66	2.38	1.82	1.87
KRT19	S14	4.65	1.57	2.55	2.73	0.36	1.96
LSP1	S177	7.28	1.68	1.97	2.53	1.85	2.13
LSP1	S188	8.93	1.75	2.00	2.53	1.87	2.04
LSP1	S189	9.40	1.82	2.59	2.12	1.86	1.84
LSP1	T175	5.30	1.83	1.76	253.06	1.87	1.94
MARCKS	S145	8.47	2.08	2.63	2.50	0.44	2.30
MARCKS	S147	7.29	0.63	2.62	2.50	0.44	2.80
MARCKS	T150	8.02	2.08	2.08	2.11	0.58	1.85
MKI67	S357	33.29	3.02	6.39	3.24	3.09	2.79
MKI67	S374	12.51	1.82	4.84	5.52	2.69	3.69
PRPF4B	S144	4.73	1.95	2.18	3.00	0.60	2.50
DSP	S2825	6.78	1.81	2.29	2.36	0.56	2.91
MCM2	S139	6.95	2.69	5.32	2.64	1.94	2.06
TRA2B	S264	3.27	3.47	2.71	3.56	0.50	1.95
DLG5	S1000	8.83	1.72	2.80	2.26	2.52	1.83
PPIG	S745	8.50	1.96	2.48	2.24	0.45	2.48
ABCC1	S930	9.14	2.87	3.49	2.48	2.14	1.83
AKAP12	S286	0.23	0.29	0.40	0.28	0.28	0.15
NCL	S34	4.75	2.59	2.80	4.75	0.33	2.35
NCL	S41	6.47	2.48	2.43	4.92	0.33	2.30
NCL	T76	6.98	2.49	4.81	4.08	2.27	2.83
ZRANB2	S307	9.22	2.24	2.00	1.87	0.65	2.47
LAD1	S177	4.19	2.33	6.06	3.72	0.15	4.14
LAD1	S64	4.04	1.84	3.49	2.22	0.24	2.04
STUB1	S19	4.70	2.24	3.84	3.35	2.03	1.78
STUB1	S23	5.09	2.65	2.94	3.35	2.03	1.78
MCM6	S762	7.58	2.55	4.83	1.83	2.50	2.00
RANBP2	T1396	7.28	1.90	3.39	2.92	1.82	3.03
NCOR2	S554	16.93	2.28	2.54	4.25	1.92	0.38
SLC12A7	T973	4.38	1.52	1.99	1.93	1.79	1.95

NUDC	T145	6.17	2.91	3.18	3.89	0.23	1.92
KIF1C	S676	7.75	1.68	2.20	1.85	0.53	2.34
AKAP13	S983	6.72	1.91	3.49	1.84	1.75	1.71
AKAP13	T953	4.39	1.93	2.10	2.84	1.77	1.66
OGFR	S378	4.60	2.16	2.27	2.48	2.68	1.70
RABGAP1	S56	6.11	1.90	2.36	4.79	0.52	3.15
CAVIN1	S171	0.17	0.18	0.18	0.10	1.68	0.32
DNTTIP2	T232	3.80	2.25	2.45	2.18	0.62	2.23
PDAP1	S63	2.60	1.75	2.70	2.71	0.34	2.06
TBC1D9B	S432	3.25	2.06	1.91	5.57	1.55	2.52
RRP1B	S736	2.09	2.21	1.74	2.25	2.07	2.19
ZC3H4	S1275	7.11	1.91	2.44	2.83	1.52	1.82
LARP1	S471	4.30	2.34	2.15	2.44	2.58	1.87
LARP1	S477	5.03	1.96	1.83	2.29	2.58	0.43
LARP1	T449	3.75	1.84	2.95	2.63	2.01	1.86
SCRIB	S1306	5.01	1.74	2.20	2.67	0.60	2.09
GPATCH4	S135	12.30	3.10	5.43	3.50	1.75	3.02
RSL1D1	S427	21.10	5.77	6.22	7.17	3.16	4.34
EIF5B	S1168	4.79	1.98	3.32	2.29	1.94	2.30
SRRM2	S1925	43.54	2.30	2.54	3.37	0.39	3.95
SRRM2	S1948	43.54	2.30	2.54	3.37	0.39	3.95
SRRM2	S1960	43.54	2.30	2.54	3.37	0.39	3.95
SRRM2	S783	8.76	2.05	2.24	2.30	0.55	2.28
SRRM2	S864	13.08	1.96	2.65	2.12	0.61	1.88
SRRM2	T2034	5.69	1.98	3.33	2.90	0.46	1.72
GOLM1	S187	6.62	1.69	1.96	3.07	0.18	0.49
GOLM1	S191	6.45	2.16	1.82	0.40	0.25	0.49
MAPT	T522	3.51	0.42	2.76	0.51	2.28	0.42
IWS1	S422	10.07	2.39	5.18	1.82	0.51	4.63
IWS1	S513	13.05	2.72	2.78	3.96	0.48	2.39
ASXL2	S395	8.41	2.14	2.78	2.01	0.57	1.70
SASH3	S38	4.04	2.20	2.21	2.25	1.91	2.68
EML4	S134	9.37	2.46	4.62	3.73	1.92	2.62
EML4	S146	6.70	1.76	2.84	3.46	2.13	2.48
EML4	T897	5.87	1.57	1.78	4.18	1.78	1.95
EML4	T899	5.47	1.62	2.03	4.18	1.78	1.95

KIAA1217	S361	2.16	1.73	1.74	3.60	1.54	1.94
ZC3HAV1	S346	6.57	2.12	3.00	7.41	1.89	1.62
CBX8	S256	10.08	1.68	3.00	8.45	2.14	2.28
CAMSAP3	S814	13.41	2.46	3.30	3.26	0.46	2.63
NDUFV3	S158	5.22	1.88	2.29	1.76	0.58	1.87
PGM5	S122	0.47	0.23	0.52	0.18	0.47	0.32
SUDS3	S53	8.14	2.09	2.91	2.82	0.44	2.23
SUDS3	T49	6.97	2.31	2.29	2.38	0.50	2.28
CCDC86	S110	3.91	2.62	2.63	3.30	2.28	8.33
IRF2BPL	T636	6.69	1.84	2.36	3.47	0.56	0.56
RNF219	S210	22.08	4.84	6.29	6.00	2.24	3.15
TANC2	S400	11.51	1.97	2.91	2.92	1.73	1.76
NSRP1	S254	8.03	2.13	3.40	6.88	0.47	3.05
CALD1	S759	3.41	0.46	2.13	0.11	0.50	0.54
CALD1	S498	3.41	0.46	2.13	0.11	0.50	0.54
PML	S403	3.34	2.69	2.55	3.34	1.89	1.72
PML	T409	7.73	2.66	2.55	4.59	1.89	1.72
AHNAK2	S851	2.95	0.38	2.98	0.25	3.73	0.44
GLCCI1	S148	3.06	1.58	2.67	2.62	1.66	2.13
LMNA	S390	1.86	1.63	1.90	2.78	1.86	0.44
LMNA	T409	7.87	1.93	2.53	2.76	1.55	0.29
DIP2B	S146	4.62	1.74	2.52	2.07	0.63	2.17
STT3B	S498	7.91	2.31	2.32	3.68	0.56	2.17
STT3B	S499	4.59	2.17	2.14	3.11	0.56	1.96

Table S2: Signature phosphosites (1.5 fold) across the 5 cancer types

Protein ID	**Site**	**Regulation Pattern**	**Breast Cancer**	**Colon Cancer**	**Lung Adenocarcinoma**	**Ovarian Cancer**	**Uterine Corpus Endometrial Carcinoma**
MSH6	S830	Hyper	6.44	2.12	4.58	2.96	2.13
KRT18	S30	Hyper	8.60	1.67	5.10	3.45	3.28
LIG1	S141	Hyper	7.31	2.07	2.60	2.00	1.92
LIG1	S51	Hyper	23.87	2.34	9.96	2.89	4.68

LIG1	T182	Hyper	12.82	2.03	5.48	2.06	2.46
LIG1	T183	Hyper	9.27	2.61	6.02	4.21	3.32
PGK1	S203	Hyper	4.31	2.34	4.04	3.19	2.71
RB1	S249	Hyper	10.51	2.80	2.51	2.28	2.34
RB1	S807	Hyper	17.25	3.05	2.32	3.22	2.14
RB1	T373	Hyper	3.69	2.05	2.85	1.86	2.78
SMN1	S31	Hyper	5.73	2.14	2.52	2.10	2.30
KRT17	S32	Hyper	2.27	2.22	2.35	2.76	2.09
ATRX	S1352	Hyper	6.01	1.88	2.32	2.49	4.08
ATRX	S1996	Hyper	6.42	1.87	2.41	2.82	2.12
HBA1	S132	Hypo	0.15	0.45	0.34	0.50	0.36
DCK	T72	Hyper	8.12	1.73	2.15	1.81	1.83
POLR2A	S1850	Hyper	5.23	2.28	2.69	1.86	1.65
POLR2A	S1917	Hyper	11.35	1.92	2.67	1.52	1.88
POLR2A	S1931	Hyper	11.35	1.92	2.67	1.52	1.88
RPL12	S38	Hyper	8.00	3.38	5.91	3.95	3.71
RPL18A	S123	Hyper	4.65	1.80	2.85	2.19	3.33
AFTPH	S382	Hyper	8.12	2.44	2.06	1.91	2.42
AFTPH	S411	Hyper	14.56	1.65	3.14	5.57	2.03
RAB11FIP1	S389	Hyper	17.00	2.45	2.75	2.15	2.62
GPATCH8	S740	Hyper	9.66	2.35	2.61	3.63	2.03
GPATCH8	S914	Hyper	12.04	2.43	2.61	2.83	3.01
GPATCH8	S981	Hyper	3.92	1.99	2.15	2.38	1.86
PKP2	S155	Hyper	8.67	2.04	1.83	3.53	2.22
CHD3	T1611	Hyper	9.02	1.81	3.06	3.81	3.52
RHBDF2	S148	Hyper	5.25	1.86	1.62	2.78	2.33
WASHC2A	S158	Hyper	4.86	1.73	1.64	3.96	1.73
ARHGAP17	S575	Hyper	4.96	2.16	1.97	2.00	1.79
ATN1	S101	Hyper	7.85	1.87	2.11	3.60	2.16
USP20	S413	Hyper	11.93	1.69	3.20	2.01	1.82
ABI1	S183	Hyper	4.53	1.61	1.80	2.16	1.69
PAK4	S104	Hyper	4.60	1.81	1.92	2.45	1.70
ZNF638	S128	Hyper	8.02	1.85	3.47	2.43	1.74
RTKN	S106	Hyper	11.60	2.56	1.81	2.81	2.55
RTKN	S543	Hyper	7.19	2.11	2.38	3.19	2.56
PHF6	S154	Hyper	5.64	2.93	3.00	3.31	3.29
TMCC1	S382	Hyper	4.79	1.74	2.66	1.96	3.68
HSP90AA1	S385	Hyper	4.68	1.65	2.16	2.58	1.74
FNBP1L	S443	Hyper	4.07	1.87	2.63	2.96	2.23
ABCF1	S109	Hyper	2.12	2.46	2.79	3.00	1.86
ARFIP1	S39	Hyper	14.80	1.70	3.60	3.03	2.41
NOP2	S177	Hyper	10.95	2.34	2.82	2.96	1.66
NOP2	S67	Hyper	26.05	5.71	4.38	3.71	1.97

GTF3C2	S167	Hyper	12.83	2.16	1.90	3.66	2.05
FOXK1	S213	Hyper	5.45	3.78	3.08	4.42	2.60
FOXK1	S223	Hyper	9.41	3.78	3.70	4.65	2.09
FOXK1	S257	Hyper	2.91	1.82	1.76	1.54	2.08
FOXK1	S441	Hyper	5.41	2.09	1.91	2.16	2.74
FOXK1	S445	Hyper	4.51	2.59	1.99	2.21	2.74
FOXK1	T436	Hyper	4.68	2.01	2.18	3.15	1.99
FOXK1	Y219	Hyper	9.09	4.05	4.30	3.61	2.40
NCKAP5L	S630	Hyper	9.19	2.01	3.13	9.63	2.19
SRSF5	S120	Hyper	4.29	2.66	2.57	2.38	2.53
SRSF5	S233	Hyper	2.55	2.63	2.94	2.60	4.06
SPP1	S219	Hyper	8.66	1.76	3.49	1.95	3.08
SPP1	S234	Hyper	14.32	4.14	4.59	2.50	2.45
SPP1	S254	Hyper	4.89	2.09	10.09	5.67	2.62
SPP1	S258	Hyper	6.16	2.52	5.67	4.12	4.15
SPP1	S263	Hyper	6.86	2.14	8.40	5.67	2.58
SPP1	S267	Hyper	5.96	2.83	5.79	40.88	2.75
INCENP	S263	Hyper	4.01	2.40	1.86	1.98	2.24
ANKZF1	S56	Hyper	14.78	3.14	3.81	4.36	3.75
ACBD5	S156	Hyper	12.42	1.97	9.03	1.72	1.93
ACBD5	S374	Hyper	20.45	2.06	6.17	1.71	2.97
CARHSP1	S30	Hyper	3.73	1.77	2.24	2.89	1.81
CARHSP1	S32	Hyper	2.70	1.77	2.19	2.99	1.95
CARHSP1	T45	Hyper	2.67	1.63	2.06	9.40	2.73
RRBP1	S185	Hyper	8.57	2.93	5.60	2.51	2.01
RRBP1	S526	Hyper	3.74	1.72	2.98	1.92	1.70
PARP2	S33	Hyper	16.92	6.02	3.50	3.03	5.96
PARP2	S34	Hyper	7.59	3.06	1.91	2.44	2.26
RERE	S679	Hyper	4.78	1.78	2.21	2.98	3.10
UHRF1	S287	Hyper	9.37	3.24	4.15	2.54	3.58
TOP2A	S1106	Hyper	25.82	4.31	6.40	3.81	1.89
TOP2A	S1247	Hyper	23.54	3.85	13.14	5.44	3.49
TOP2A	S1393	Hyper	19.41	8.32	1.81	4.07	2.31
TOP2B	S1335	Hyper	5.40	3.15	2.86	1.72	2.59
TOP2B	S1337	Hyper	4.16	3.15	2.45	2.04	2.28
TOP2B	S1408	Hyper	5.64	1.92	2.19	3.69	2.37
TOP2B	T1398	Hyper	6.58	2.02	2.16	2.63	2.37
ACSS2	S267	Hyper	1.68	1.96	2.07	2.11	1.94
ZC3H13	S831	Hyper	6.83	2.14	2.23	2.05	3.03
ZC3H13	S833	Hyper	6.56	2.17	2.23	1.84	3.64
ZC3H13	S877	Hyper	4.16	2.24	1.72	2.19	2.23
ZC3H13	S993	Hyper	8.15	1.92	2.60	2.43	1.66
MYH14	S1991	Hyper	9.51	1.94	2.34	1317.20	2.79

MYH14	S1997	Hyper	9.51	1.88	2.48	1317.20	2.62
SEC31A	S799	Hyper	7.72	1.84	2.97	2.69	1.69
IRF2BP2	S344	Hyper	5.86	2.45	2.22	2.88	1.71
HNRNPC	S220	Hyper	7.47	1.86	2.34	4.61	1.90
HNRNPC	S225	Hyper	12.37	1.96	2.88	2.83	1.61
HNRNPC	S226	Hyper	12.49	2.08	2.58	3.53	2.15
KTN1	S75	Hyper	9.50	1.71	2.15	3.91	2.07
KTN1	T153	Hyper	8.15	1.57	3.12	2.08	1.88
PAICS	S27	Hyper	5.91	2.40	5.56	2.13	3.09
HNRNPUL2	S168	Hyper	19.97	2.06	1.81	2.07	2.22
DIAPH1	S22	Hyper	4.49	2.08	2.47	3.35	2.72
CCDC88C	S227	Hyper	13.13	2.00	2.55	2.00	2.94
U2SURP	S67	Hyper	13.85	1.81	4.37	3.66	2.60
MYO1C	S1022	Hypo	0.44	0.32	0.25	0.24	0.30
THOC2	S1393	Hyper	4.79	1.95	1.66	2.09	3.53
TMEM214	T97	Hyper	16.16	3.04	4.53	2.08	2.30
ACLY	S481	Hyper	6.30	1.80	1.87	2.38	1.82
ZBTB21	S435	Hyper	3.65	2.37	3.57	3.02	1.60
HDAC7	T413	Hyper	4.94	1.83	1.58	2.22	1.71
BAG6	S958	Hyper	5.17	2.04	2.30	3.05	1.83
BAG6	S967	Hyper	5.39	2.12	2.30	3.05	2.04
AKT1S1	S203	Hyper	6.51	2.35	2.12	1.92	2.01
AKT1S1	S211	Hyper	8.79	2.31	2.20	2.07	2.22
AKT1S1	S212	Hyper	9.90	2.31	2.54	2.52	1.92
PDS5A	S1305	Hyper	4.68	2.06	2.04	1.98	1.90
NRDC	S96	Hyper	8.31	1.79	2.04	2.15	2.33
ZFAND5	S48	Hyper	3.88	1.76	2.53	2.72	1.98
TLE3	S205	Hyper	6.33	2.09	2.79	2.13	1.90
TLE3	S286	Hyper	7.31	1.81	2.59	1.78	1.78
MYBBP1A	S1163	Hyper	6.15	3.45	2.76	3.79	2.77
UBE4B	S124	Hyper	2.87	1.85	2.14	2.59	1.72
DDX54	S782	Hyper	9.15	2.75	2.73	2.01	2.34
BRD2	S301	Hyper	4.34	1.56	2.34	1.64	1.67
LSM14A	S183	Hyper	3.57	1.91	1.76	2.54	1.76
NCBP3	S415	Hyper	10.03	2.34	3.17	1.98	1.66
PHKA1	S758	Hyper	3.68	3.07	5.06	2.74	3.08
SET	S63	Hyper	8.55	3.05	2.92	1.99	1.76
SET	S7	Hyper	12.31	1.89	2.58	3.26	2.35
RACGAP1	S203	Hyper	10.29	1.92	6.38	2.53	4.51
RACGAP1	T342	Hyper	8.41	2.26	4.24	2.68	2.81
TFRC	S34	Hyper	7.18	2.82	2.70	3.09	2.84
CLK3	S224	Hyper	4.30	2.19	2.49	1.83	1.68
CLK3	S226	Hyper	4.30	1.92	2.12	14.71	1.64

CLDN5	T292	Hypo	0.46	0.44	0.09	0.19	0.19
MEF2A	S108	Hyper	2.87	1.65	1.84	5.23	3.61
ARHGEF18	S733	Hyper	5.01	2.15	1.84	2.78	1.87
TBC1D5	S796	Hyper	2.60	2.00	2.22	2.07	1.79
NDRG1	S332	Hyper	2.91	2.25	2.27	2.37	2.25
TCOF1	S1193	Hyper	3.08	2.20	2.70	2.03	1.57
TCOF1	S156	Hyper	15.21	4.12	5.63	4.01	2.54
TCOF1	S381	Hyper	9.06	3.02	3.52	3.33	2.02
TCOF1	T1072	Hyper	7.05	2.18	2.12	2.59	1.84
TCOF1	T249	Hyper	8.07	1.96	3.12	2.02	1.96
TCOF1	T914	Hyper	10.15	2.47	2.71	2.11	1.71
GRAMD1A	S260	Hyper	9.49	3.16	5.34	7.51	3.30
TRAF3IP1	S359	Hyper	7.12	1.80	1.83	2.01	2.27
TP53BP1	S1033	Hyper	5.85	2.05	1.85	2.55	2.22
TP53BP1	S1072	Hyper	13.12	2.23	3.26	2.59	6.08
TP53BP1	S1073	Hyper	16.94	2.74	3.28	3.81	6.08
TP53BP1	S1099	Hyper	11.98	2.68	2.70	2.52	1.82
TP53BP1	S1106	Hyper	11.98	3.11	2.78	2.72	1.79
TP53BP1	S1431	Hyper	5.22	2.22	3.28	1.92	1.74
TP53BP1	S1623	Hyper	6.94	2.15	4.12	1.68	2.41
TP53BP1	S1683	Hyper	20.77	2.56	5.34	5.58	3.59
TP53BP1	S530	Hyper	9.01	2.10	7.03	1.99	1.71
TP53BP1	S644	Hyper	5.41	1.70	2.80	2.22	1.89
TP53BP1	S645	Hyper	4.63	1.70	2.39	1.94	1.89
TP53BP1	S836	Hyper	3.90	1.83	2.36	2.29	1.98
TP53BP1	S839	Hyper	3.90	3.25	2.46	2.71	2.21
PPP1R13L	S134	Hyper	6.72	1.88	2.06	2.27	2.01
SAR1A	T139	Hyper	3.29	1.71	2.23	2.04	2.37
ARHGAP32	S952	Hyper	5.42	1.89	2.06	1.89	2.32
ARHGAP32	T1236	Hyper	5.31	1.84	2.27	2.07	3.61
C17orf49	S96	Hyper	6.82	2.96	4.94	2.41	2.95
WRAP53	S26	Hyper	8.46	2.14	2.93	2.73	1.95
CTPS2	S571	Hyper	5.08	1.68	2.37	334.30	2.46
CTPS2	S574	Hyper	5.11	1.81	2.28	2.86	1.70
RRP12	T77	Hyper	5.68	2.32	2.43	1.77	2.23
KIAA1671	S1701	Hyper	6.47	3.13	3.11	3.49	2.10
ELF1	S143	Hyper	3.01	1.98	1.78	2.14	2.10
SIN3A	S860	Hyper	8.57	2.42	2.25	3.04	1.92
ZNF652	S100	Hyper	3.62	2.77	2.66	14.99	2.24
RBM17	T71	Hyper	6.26	1.61	2.58	2.73	1.76
KDM3A	S463	Hyper	12.21	2.19	6.92	1.82	2.60
SLC25A5	S42	Hyper	6.51	1.89	2.97	2.53	1.73
RBMXL1	S208	Hyper	5.08	2.32	3.12	2.51	1.67

RBMXL1	S58	Hyper	6.96	1.79	2.52	2.08	1.73
HTATSF1	S529	Hyper	11.27	2.02	4.15	3.65	2.28
HTATSF1	S616	Hyper	13.35	2.19	2.75	2.75	2.81
PTBP3	S426	Hyper	3.37	3.21	3.00	2.61	2.51
CHAMP1	S204	Hyper	8.63	1.97	2.08	3.45	1.92
CHAMP1	S214	Hyper	9.07	2.27	2.72	2.82	1.88
CHAMP1	S386	Hyper	3.67	2.34	1.90	2.26	2.01
CHAMP1	S432	Hyper	7.78	1.76	1.71	3.67	2.02
FLNB	S1536	Hyper	7.55	2.97	3.44	3.09	2.31
RAPGEF6	S1502	Hyper	2.77	1.65	1.85	1.95	1.96
SKA3	S155	Hyper	4.78	2.02	2.36	2.27	1.98
UTP14A	S353	Hyper	4.69	2.24	2.28	6.89	2.36
CHD8	S1420	Hyper	5.57	1.74	3.19	3.94	2.06
CHD8	S1424	Hyper	5.57	1.74	3.47	3.17	2.68
LAS1L	S543	Hyper	9.13	1.76	2.60	2.18	1.88
DCAF1	S978	Hyper	3.86	2.43	2.34	2.23	1.90
RAB3GAP1	T542	Hyper	10.27	2.09	3.05	1.83	2.32
SHROOM1	T103	Hyper	3.33	1.92	2.91	2.30	1.58
AAAS	S462	Hyper	5.27	2.84	2.52	3.93	2.09
CARMIL1	S122	Hyper	5.49	2.30	2.09	3.77	1.62
CARMIL1	S1282	Hyper	4.16	1.76	1.91	2.60	1.92
BRD7	S279	Hyper	8.98	1.93	2.21	2.87	1.72
SMG7	S739	Hyper	5.15	1.98	3.35	1.89	2.29
SRPRA	S270	Hyper	10.57	2.75	2.25	6.30	1.84
SF1	S205	Hyper	7.46	1.82	2.40	1.88	2.45
VDAC2	S130	Hyper	7.37	2.32	2.64	2.49	2.17
PHF8	S804	Hyper	9.45	2.14	2.11	2.06	4.37
DGCR8	S95	Hyper	4.13	1.66	2.13	2.14	1.86
CLSPN	S83	Hyper	33.47	4.85	10.01	4.39	3.21
DIDO1	S152	Hyper	4.96	2.43	2.39	2.25	2.39
DIDO1	S805	Hyper	4.54	1.90	1.83	2.42	2.59
DIDO1	S809	Hyper	5.61	1.81	1.92	1.74	1.94
MATR3	S598	Hyper	7.40	2.07	2.40	2.09	2.04
MATR3	S604	Hyper	10.28	2.20	3.04	2.49	2.02
MATR3	S766	Hyper	10.33	1.55	2.58	3.98	1.86
CEP152	S1461	Hyper	5.50	1.97	2.87	2.51	2.19
DENND1B	S596	Hyper	4.51	1.69	2.78	2.17	1.97
SRSF2	S189	Hyper	5.45	2.17	2.75	3.83	2.01
SRSF2	S191	Hyper	5.45	2.64	2.75	3.48	2.38
CLINT1	S227	Hyper	8.32	1.76	2.54	4.03	1.93
CLINT1	S299	Hyper	7.40	1.67	2.61	2.84	3.12
CLINT1	T294	Hyper	8.30	1.71	3.04	2.23	2.37
KMT2A	S351	Hyper	5.62	2.67	2.58	2.91	1.66

EIF4G3	S231	Hyper	5.89	1.62	2.35	1.69	1.92
LRBA	S2485	Hyper	3.45	1.72	2.94	2.94	2.00
KCNAB2	S9	Hyper	5.10	1.84	2.03	1.86	1.67
PGM3	S92	Hyper	4.23	1.82	2.53	2.55	2.12
SAFB	S383	Hyper	6.03	2.60	2.54	2.84	2.01
SAFB	S761	Hyper	9.80	1.74	3.19	2.65	1.80
CORO7	S21	Hyper	4.89	1.56	2.27	2.53	1.72
RBM15	S656	Hyper	11.07	2.19	2.29	3.41	1.75
RBM15	S670	Hyper	6.68	2.66	2.68	2.84	2.11
RBM15	S674	Hyper	4.15	2.20	2.25	1.83	1.68
RBM15	S700	Hyper	6.05	2.15	2.89	3.03	1.68
RBM15	S741	Hyper	11.85	2.30	2.69	3.62	1.92
EZH2	T487	Hyper	11.82	2.08	3.33	1.67	2.40
RBM10	S801	Hyper	8.27	1.97	2.12	1.66	1.75
RBM10	S803	Hyper	8.27	2.80	2.16	1.75	1.93
RBM10	S862	Hyper	4.17	1.56	2.09	2.58	1.76
RBM10	T156	Hyper	4.47	1.68	2.20	1.96	2.16
ASPM	S425	Hyper	5.25	1.73	2.89	3.14	1.83
AKAP1	S592	Hyper	14.55	2.41	5.09	2.46	1.70
CLIP1	S204	Hyper	4.27	1.86	2.17	2.02	1.93
KRT8	S302	Hyper	10.25	2.29	5.48	3.29	2.70
KRT8	S52	Hyper	9.30	1.87	2.05	2.83	3.16
E2F8	S417	Hyper	5.02	2.43	4.82	2.38	2.26
MELK	S457	Hyper	10.50	2.44	2.34	2.35	2.32
CDCA8	S219	Hyper	6.43	2.72	4.46	3.46	2.59
SLC20A2	S256	Hyper	7.96	2.11	3.04	1.68	3.10
HNRNPH1	S63	Hyper	4.63	2.38	2.55	2.41	2.05
CDC20	S41	Hyper	7.33	2.04	5.46	2.97	2.51
WDR4	S390	Hyper	6.59	3.66	4.08	2.88	1.88
KIF18B	S674	Hyper	14.60	2.01	3.24	3.78	2.73
LARP7	T264	Hyper	12.52	2.64	3.03	3.91	2.03
TJP3	S112	Hyper	21.02	2.85	2.18	2.45	2.43
TJP3	S319	Hyper	11.21	1.85	2.27	3.26	4.58
TJP3	S327	Hyper	8.53	2.06	1.95	3.26	6.50
HSP90AB1	S226	Hyper	6.04	3.36	2.84	2.68	1.71
DOCK7	S900	Hyper	4.13	1.65	3.60	3.48	2.42
USP10	S580	Hyper	3.66	1.81	2.65	2.99	1.67
CHD2	S1085	Hyper	7.88	1.99	1.74	41.41	12.06
ESF1	S153	Hyper	10.74	4.28	7.33	3.12	3.54
ESF1	S663	Hyper	6.66	3.02	3.24	3.78	1.74
STIM1	S257	Hyper	2.27	2.41	2.34	3.10	1.91
LILRB4	S318	Hyper	4.49	1.91	2.98	1.68	1.99
LILRB4	S319	Hyper	10.43	1.76	2.98	2.22	1.99

RANGAP1	S442	Hyper	11.83	4.22	4.64	4.20	2.23
PBK	S59	Hyper	9.29	2.33	3.74	6.19	2.95
ARHGAP27	S466	Hyper	10.49	1.68	2.20	1.97	1.84
ADNP	S98	Hyper	14.15	2.21	3.49	5.37	2.53
JMJD1C	S470	Hyper	6.30	2.67	2.36	4.04	1.96
CCAR1	S682	Hyper	12.59	2.21	2.60	2.25	1.78
SIPA1L1	S1181	Hyper	5.57	2.25	2.18	2.76	2.40
SIPA1L1	S1249	Hyper	11.74	1.83	3.51	3.16	1.86
SIPA1L1	S1487	Hyper	6.05	2.30	2.94	3.25	2.10
SIPA1L1	S1507	Hyper	2.92	2.52	2.65	3.19	2.55
NOLC1	S518	Hyper	13.90	4.84	4.50	3.68	3.39
NOLC1	S573	Hyper	16.43	3.20	2.84	2.65	2.23
C2CD5	S284	Hyper	3.48	2.38	1.77	3.46	1.71
C2CD5	S662	Hyper	4.79	2.06	2.00	2.20	2.11
GTF3C1	S1068	Hyper	8.16	2.31	2.23	1.91	2.81
GTF3C1	T1873	Hyper	19.79	2.48	3.10	3.30	2.33
SLC35B2	S422	Hyper	6.11	2.24	3.31	2.16	2.32
PHRF1	S1360	Hyper	9.34	2.16	2.43	2.60	2.55
PHRF1	S1371	Hyper	6.62	2.24	2.46	2.60	3.42
PHRF1	S991	Hyper	7.60	1.80	2.46	3.49	1.72
FARP1	S920	Hyper	5.65	1.72	2.06	1.82	3.75
NUP35	S262	Hyper	4.71	2.86	6.51	2.29	2.07
NUP35	T291	Hyper	10.45	1.87	3.94	4.84	1.64
CYFIP1	T1234	Hyper	4.44	1.90	1.97	2.92	2.52
TEX2	S790	Hyper	6.54	1.77	1.59	2.29	2.16
KLC4	T162	Hyper	6.33	3.03	2.11	7.44	2.03
EI24	S304	Hyper	13.10	2.17	3.03	2.22	2.15
DOCK1	T1793	Hyper	2.15	1.57	1.79	2.88	1.57
PHF3	S1045	Hyper	8.23	2.10	2.34	1.79	1.61
HSH2D	S137	Hyper	8.03	2.07	3.08	2.18	3.12
KDM6A	T879	Hyper	5.90	2.31	2.36	2.53	2.06
AKAP8L	S222	Hyper	8.74	2.40	2.30	2.33	1.73
NOP14	S148	Hyper	5.60	2.27	2.29	1.56	2.12
CLK2	S50	Hyper	8.63	2.38	3.72	2.95	2.25
ZC3H18	S67	Hyper	11.42	2.02	2.32	2.46	2.60
ZC3H18	S74	Hyper	10.98	2.35	2.25	2.06	3.44
CHD4	S1524	Hyper	7.12	2.21	2.43	1.87	1.88
CHD4	S1569	Hyper	17.95	2.61	2.66	3.02	1.76
CHD4	T1542	Hyper	6.34	1.67	2.16	1.75	2.27
CHD4	T1546	Hyper	8.01	1.72	2.97	2.19	2.27
RPRD2	S902	Hyper	12.93	1.62	2.53	4.09	2.47
BAZ2A	S1768	Hyper	10.93	2.38	2.33	4.41	3.80
GATAD2A	S100	Hyper	4.33	1.76	2.09	2.37	2.06

BCLAF1	S194	Hyper	6.05	3.03	2.82	2.72	2.41
BCLAF1	S196	Hyper	7.22	1.70	2.89	3.22	1.70
BCLAF1	S266	Hyper	9.83	2.67	3.36	3.07	2.65
BCLAF1	S288	Hyper	6.18	2.00	2.23	2.98	2.24
BCLAF1	S387	Hyper	11.08	1.92	2.31	2.93	3.13
BCLAF1	S395	Hyper	6.60	2.37	2.56	2.21	1.65
BCLAF1	S494	Hyper	6.04	2.17	2.46	2.48	1.70
BCLAF1	S510	Hyper	6.30	2.28	2.39	3.01	1.67
BCLAF1	S758	Hyper	4.44	2.33	3.42	2.97	2.96
BCLAF1	T400	Hyper	8.81	2.58	2.58	2.47	1.73
BCLAF1	T403	Hyper	10.08	2.51	2.85	2.37	1.65
WDR75	S715	Hyper	7.56	2.89	3.54	3.31	1.94
WDR75	S718	Hyper	7.56	3.09	4.75	3.31	1.90
WDR75	S732	Hyper	10.52	3.45	3.01	4.45	13.44
TUBA1C	S118	Hyper	10.57	2.49	4.71	3.94	6.42
HEXIM2	T54	Hyper	7.67	1.67	2.46	2.07	2.21
SRRM1	S260	Hyper	6.77	1.99	2.15	1.96	1.62
SRRM1	S391	Hyper	5.51	2.02	1.97	4.69	2.73
SRRM1	S393	Hyper	5.51	2.18	2.17	5.09	2.48
SRRM1	S463	Hyper	7.44	2.08	2.00	3.76	1.91
SRRM1	S609	Hyper	4.72	1.76	3.58	2.53	2.45
SRRM1	S617	Hyper	2.11	1.84	3.48	2.88	1.94
SRRM1	S628	Hyper	6.22	1.72	2.20	1.84	2.01
SRRM1	S650	Hyper	9.09	2.18	2.46	2.59	2.10
SRRM1	S750	Hyper	9.65	2.12	2.33	2.09	1.88
SRRM1	S752	Hyper	5.06	2.21	2.22	2.08	1.98
SRRM1	S768	Hyper	8.43	2.02	3.28	2.23	2.38
SRRM1	S781	Hyper	6.58	1.92	2.63	2.12	5.02
SRRM1	S787	Hyper	6.48	1.83	2.02	2.12	5.20
SRRM1	S809	Hyper	4.85	3.11	2.30	3.05	2.30
SRRM1	S886	Hyper	6.55	2.34	2.42	2.89	1.80
SRRM1	T220	Hyper	6.59	2.03	2.33	2.63	1.69
SRRM1	T416	Hyper	18.11	3.08	4.35	8.20	1.89
SRRM1	T584	Hyper	8.79	2.68	2.70	2.42	3.65
SRRM1	T586	Hyper	8.79	2.58	2.49	2.47	2.35
SRRM1	T790	Hyper	6.13	1.93	2.02	2.12	5.38
THUMPD1	S88	Hyper	6.75	2.35	2.08	3.21	2.03
ZNF687	S1057	Hyper	7.54	2.19	2.99	4.01	1.90
ZNF687	S1106	Hyper	7.75	3.33	1.78	5.23	2.11
ZNF687	S140	Hyper	8.22	1.80	2.68	2.86	1.93
ZNF687	S253	Hyper	9.99	2.38	3.36	2.20	3.02
ZNF687	S266	Hyper	10.52	2.18	3.81	1.92	2.61
ZNF687	S271	Hyper	10.52	2.24	3.81	2.80	2.85

ZNF687	S374	Hyper	12.45	2.42	3.22	2.10	1.91
ZNF687	T377	Hyper	6.23	1.90	2.51	2.32	3.01
ZNF687	T432	Hyper	3.19	1.71	3.00	3.98	2.15
BRD1	S945	Hyper	6.95	3.93	2.93	3.36	2.57
CIC	S2306	Hyper	5.82	1.62	1.79	3.13	1.93
CIC	S2318	Hyper	5.26	1.95	2.31	4.23	1.93
CIC	T2307	Hyper	4.69	1.77	1.86	2.47	1.93
CIC	T2317	Hyper	10.95	1.65	2.48	2.62	1.93
CAD	S1796	Hyper	4.33	2.44	3.79	2.17	1.91
TICRR	S598	Hyper	11.15	2.53	4.94	2.49	2.55
ARHGAP39	S407	Hyper	7.89	2.09	2.59	2.94	1.87
DOK3	S308	Hyper	9.25	1.74	1.98	2.53	1.75
MAP1S	S449	Hyper	3.28	1.96	1.78	3.44	1.65
MAP1S	S737	Hyper	3.83	1.72	1.80	1.95	4.82
PCYT1A	S323	Hyper	4.10	2.51	3.58	1.87	3.91
KDM5B	S1492	Hyper	9.04	1.68	6.39	3.39	1.85
CLIC6	S303	Hyper	5.08	2.04	2.45	3.33	1.75
XRN2	S526	Hyper	22.48	2.72	2.35	2.20	2.02
XRN2	S577	Hyper	5.89	2.52	2.79	1.73	1.94
XRN2	S579	Hyper	6.67	2.74	2.44	2.70	2.12
HNRNPK	S284	Hyper	4.88	1.81	2.34	2.49	1.69
DNMT1	S143	Hyper	7.51	2.87	2.78	2.74	2.76
DNMT1	S154	Hyper	16.19	2.91	2.78	4.94	3.91
DNMT1	S714	Hyper	9.63	2.46	4.11	2.83	2.70
NFX1	S150	Hyper	9.46	1.74	1.97	2.59	2.76
EIF2A	S481	Hyper	7.66	2.59	3.31	3.81	2.24
HMGA1	S36	Hyper	6.23	2.44	2.23	3.70	2.34
HMGA1	S44	Hyper	5.49	4.24	2.66	2.55	1.97
HMGA1	T39	Hyper	6.39	3.23	2.49	1.95	2.53
HMGA1	T53	Hyper	8.06	3.73	5.58	3.27	2.78
ZC3H11A	S171	Hyper	8.60	1.95	2.69	4.17	2.06
ZC3H11A	S758	Hyper	4.37	3.42	2.67	1.89	1.76
ZC3H11A	S759	Hyper	5.27	2.43	2.67	3.51	1.76
NUP88	S517	Hyper	10.14	2.61	4.23	2.71	2.55
CDK1	T161	Hyper	12.53	1.73	5.53	2.33	2.02
GPS1	S536	Hyper	3.01	1.94	2.80	4.55	2.02
GPS1	S551	Hyper	7.89	2.08	1.90	4.50	2.04
GPS1	T547	Hyper	7.89	1.82	2.18	1.75	1.98
SLC4A7	S288	Hyper	8.73	2.02	2.53	5.32	2.70
SLC4A7	S292	Hyper	4.55	2.17	4.50	3.35	2.44
THRAP3	S243	Hyper	3.25	2.15	2.36	1.84	1.80
THRAP3	S248	Hyper	5.26	2.13	2.77	3.01	1.66
THRAP3	S253	Hyper	5.39	2.34	1.89	3.07	1.66

THRAP3	S315	Hyper	6.96	1.95	2.20	2.27	5.02
THRAP3	S320	Hyper	6.96	1.84	2.29	1.96	5.02
NCOA2	S29	Hyper	5.62	1.89	2.13	2.19	1.63
AHCTF1	S1222	Hyper	7.34	2.24	3.16	2.39	1.95
ADAT1	S42	Hyper	4.28	2.62	3.45	2.72	2.07
WASHC2C	S158	Hyper	4.86	1.73	1.64	3.96	1.73
TIMELESS	S1120	Hyper	5.08	2.41	1.78	1.68	2.35
TIMELESS	S1148	Hyper	5.33	2.52	4.51	4.60	1.91
HELZ	S1318	Hyper	13.03	1.93	2.95	3.47	1.94
HELZ	T1164	Hyper	5.77	1.61	1.75	2.54	2.02
SNX27	S51	Hyper	3.82	2.43	2.57	1.87	1.86
CCDC97	S192	Hyper	4.56	1.58	2.33	4.62	1.85
CTR9	S1063	Hyper	12.38	1.96	3.25	5.50	2.19
CTR9	S917	Hyper	27.47	2.62	5.39	2.21	4.70
CTR9	T951	Hyper	7.38	2.23	2.46	2.60	2.16
PPP1R35	S52	Hyper	4.29	1.72	1.89	3.87	1.86
FRA10AC1	S278	Hyper	5.69	2.17	1.76	2.15	1.90
SETD2	S570	Hyper	11.65	1.87	1.87	2.92	3.10
PBRM1	S522	Hyper	5.12	1.99	2.49	3.39	2.14
PBRM1	S526	Hyper	5.12	1.57	2.13	2.31	1.73
YEATS2	S627	Hyper	6.06	1.89	2.68	3.44	2.20
SETX	S1663	Hyper	4.88	1.90	2.29	2.08	1.92
TRAPPC10	S736	Hyper	11.43	2.41	2.87	2.95	1.82
ELAVL1	S202	Hyper	6.24	1.64	2.23	2.71	1.83
HDAC2	S422	Hyper	5.80	2.13	2.51	2.09	2.85
EIF3E	S399	Hyper	6.20	1.87	3.12	2.36	2.12
ARVCF	S343	Hyper	3.43	2.61	2.24	2.21	2.42
ATP2B1	S1182	Hyper	7.29	1.81	2.00	9.28	2.13
CAV1	S37	Hypo	0.46	0.39	0.15	0.09	0.21
CAV1	Y42	Hypo	0.50	0.49	0.36	0.26	0.24
DES	S28	Hypo	0.39	0.48	0.25	0.26	0.50
DES	S32	Hypo	0.34	0.34	0.00	0.26	0.28
DSG2	S700	Hyper	9.59	2.33	3.75	3.32	4.70
DSG2	S701	Hyper	14.71	2.33	7.35	4.50	3.87
EEF2	T59	Hyper	5.35	2.38	2.64	2.85	1.91
ETV6	S22	Hyper	2.31	1.84	1.64	6.91	2.22
FKBP3	S36	Hyper	4.33	1.74	2.85	2.52	4.36
RBMX	S208	Hyper	5.08	2.32	3.12	2.51	1.67
RBMX	S58	Hyper	6.96	1.79	2.52	2.08	1.73
HSPA4	S647	Hyper	12.13	1.79	1.94	2.98	1.82
HSPD1	S70	Hyper	7.36	3.22	3.63	1.95	1.86
ITPR3	S2670	Hyper	3.05	1.94	1.66	2.38	1.87
KRT19	S14	Hyper	4.65	1.57	2.55	2.73	1.96

LIG3	S210	Hyper	7.38	2.22	2.77	2.84	2.00
LSP1	S177	Hyper	7.28	1.68	1.97	2.53	2.13
LSP1	S188	Hyper	8.93	1.75	2.00	2.53	2.04
LSP1	S189	Hyper	9.40	1.82	2.59	2.12	1.84
LSP1	T175	Hyper	5.30	1.83	1.76	253.06	1.94
MARCKS	S145	Hyper	8.47	2.08	2.63	2.50	2.30
MARCKS	T150	Hyper	8.02	2.08	2.08	2.11	1.85
MKI67	S1131	Hyper	6.91	3.76	3.46	2.60	2.42
MKI67	S2223	Hyper	12.63	2.88	3.74	3.54	2.15
MKI67	S357	Hyper	33.29	3.02	6.39	3.24	2.79
MKI67	S374	Hyper	12.51	1.82	4.84	5.52	3.69
MKI67	T1923	Hyper	5.43	2.21	5.69	2.71	2.41
OSBP	S198	Hyper	5.58	1.96	1.87	2.34	2.25
OSBP	S382	Hyper	3.30	1.97	2.36	1.66	3.63
OSBP	S386	Hyper	6.26	1.94	3.19	2.15	1.87
OSBP	S389	Hyper	6.48	2.40	3.07	2.50	2.13
PGAM1	S31	Hyper	4.31	2.17	3.98	2.70	2.22
PTBP1	S459	Hyper	5.20	2.65	3.21	2.12	2.69
RBBP8	S163	Hyper	2.82	1.74	2.29	8.65	1.86
SGTA	T81	Hyper	6.10	2.17	2.02	2.01	2.38
SLC9A1	S605	Hyper	2.83	1.67	2.00	2.41	2.85
SMARCC1	S310	Hyper	4.42	2.60	3.42	4.18	2.39
SNRNP70	S226	Hyper	13.54	2.28	2.85	4.18	1.81
SP100	S231	Hyper	8.80	2.48	2.12	6.38	2.06
SP100	S409	Hyper	5.94	2.36	3.43	2.17	1.84
SP100	S453	Hyper	4.51	1.75	2.57	2.97	1.72
SPAG1	S418	Hyper	6.38	3.11	5.06	2.33	3.50
SRPK1	S311	Hyper	8.96	2.55	4.04	3.50	2.89
SSRP1	S444	Hyper	8.31	2.24	2.55	5.28	1.52
SSRP1	Y438	Hyper	6.50	2.35	1.82	5.31	1.52
SEC62	S315	Hyper	19.51	2.33	2.65	2.48	1.66
TPR	S1676	Hyper	9.48	2.99	6.63	4.37	2.30
VDAC1	S104	Hyper	6.46	3.20	3.57	2.58	3.29
CLIP2	S207	Hyper	10.31	1.71	1.60	3.19	2.20
WEE1	S165	Hyper	10.87	2.52	3.60	3.28	2.33
KMT2D	S3130	Hyper	8.31	1.83	2.35	2.60	1.72
AXIN1	S486	Hyper	9.65	1.93	2.76	4.18	6.52
AXIN1	S493	Hyper	8.14	2.10	2.76	5.84	4.30
YBX3	S203	Hyper	3.84	1.64	3.66	3.44	2.69
YBX3	S204	Hyper	3.26	1.64	3.21	4.25	2.69
DENR	S73	Hyper	6.85	2.38	4.05	1.92	2.33
TRIM24	S710	Hyper	5.42	2.19	2.40	3.13	2.96
TRIM24	S777	Hyper	8.34	2.91	2.62	3.34	1.80

TRIM24	S991	Hyper	9.89	2.46	2.56	3.45	2.66
TRIM24	S994	Hyper	11.79	3.02	2.67	2.90	2.98
SQSTM1	S152	Hyper	5.33	1.79	3.95	2.59	2.11
SQSTM1	S24	Hyper	3.55	2.12	2.05	2.20	1.75
SQSTM1	S272	Hyper	6.07	2.49	3.97	2.28	2.17
PRPF4B	S144	Hyper	4.73	1.95	2.18	3.00	2.50
PRPF4B	S20	Hyper	12.47	2.21	2.66	2.17	1.85
PRPF4B	S23	Hyper	11.86	2.27	2.88	2.30	1.80
PRPF4B	S437	Hyper	2.86	2.01	2.51	4.01	2.47
ST13	S75	Hyper	2.54	2.46	2.50	14.73	1.76
UBE2M	S28	Hyper	10.94	3.86	2.76	2.21	2.77
EIF4EBP1	T70	Hyper	3.11	1.78	1.74	5.81	2.24
TARBP2	S131	Hyper	5.75	1.99	4.03	1.90	3.47
ARHGAP1	S51	Hyper	5.40	2.46	1.97	1.89	1.66
ASPH	S22	Hyper	4.35	3.16	3.39	3.90	3.47
DAP	S51	Hyper	5.67	2.01	2.88	2.95	1.72
DSP	S178	Hyper	4.76	1.98	3.94	1.76	2.54
DSP	S2820	Hyper	6.73	1.72	3.53	1.96	2.91
DSP	S2821	Hyper	6.66	1.72	2.47	2.48	2.17
DSP	S2825	Hyper	6.78	1.81	2.29	2.36	2.91
BPTF	S1231	Hyper	3.13	1.99	3.02	2.14	1.96
BPTF	S2370	Hyper	8.28	1.99	2.39	2.62	1.78
BPTF	S572	Hyper	10.69	1.76	2.26	2.85	2.61
GOLGA2	S66	Hyper	7.54	2.85	7.36	8.56	2.32
MCM2	S139	Hyper	6.95	2.69	5.32	2.64	2.06
YBX1	S165	Hyper	6.46	2.22	2.58	2.40	2.76
YBX1	S174	Hyper	6.46	2.06	4.11	2.40	1.70
TRA2B	S264	Hyper	3.27	3.47	2.71	3.56	1.95
TRA2B	S266	Hyper	5.32	3.70	2.63	2.22	3.07
PRRC2A	S1089	Hyper	6.77	2.73	2.74	2.11	2.82
PRRC2A	S1092	Hyper	13.00	2.93	4.46	1.81	2.27
PRRC2A	S350	Hyper	3.75	1.99	2.52	2.69	2.41
PRRC2A	S380	Hyper	8.28	2.23	2.61	2.67	1.74
PRRC2A	T610	Hyper	6.63	1.66	2.87	2.12	1.91
CAVIN2	S293	Hypo	0.23	0.26	0.29	0.40	0.21
PRPF3	S619	Hyper	9.02	2.53	3.37	2.16	1.81
SCAF11	S413	Hyper	5.46	1.73	2.49	1.67	1.73
SCAF11	S776	Hyper	5.84	1.98	2.42	3.64	1.88
DDX21	S121	Hyper	2.77	4.98	4.56	5.28	3.19
DDX21	S173	Hyper	9.94	3.19	3.48	4.99	3.13
DLG5	S1000	Hyper	8.83	1.72	2.80	2.26	1.83
MED1	S1401	Hyper	11.00	2.24	2.47	3.99	2.16
PPIG	S696	Hyper	4.63	1.94	4.18	3.13	2.77

PPIG	S745	Hyper	8.50	1.96	2.48	2.24	2.48
SYMPK	S1243	Hyper	18.71	1.82	3.02	2.57	2.64
SYMPK	S1259	Hyper	12.83	2.04	2.65	2.92	2.64
HDAC1	S421	Hyper	6.40	1.96	2.84	2.23	2.77
HDAC1	S423	Hyper	8.60	2.77	2.07	2.86	4.12
ABCC1	S930	Hyper	9.14	2.87	3.49	2.48	1.83
TRIM25	S100	Hyper	5.57	1.74	2.60	2.89	2.18
ZRSR2	S384	Hyper	7.88	2.65	2.05	2.25	1.70
AKAP12	S286	Hypo	0.23	0.29	0.40	0.28	0.15
AKAP12	S290	Hypo	0.30	0.56	0.23	0.30	0.39
MED12	S635	Hyper	11.23	2.23	2.44	2.29	1.64
BCL3	S374	Hyper	6.53	2.17	4.06	3.24	3.58
CTTN	S418	Hyper	5.48	2.86	2.23	1.62	1.89
LMO7	S1182	Hyper	4.63	1.78	3.52	1.73	2.77
NCL	S34	Hyper	4.75	2.59	2.80	4.75	2.35
NCL	S41	Hyper	6.47	2.48	2.43	4.92	2.30
NCL	S42	Hyper	6.39	2.48	2.37	4.57	2.30
NCL	S67	Hyper	8.27	4.19	4.61	2.46	2.70
NCL	T76	Hyper	6.98	2.49	4.81	4.08	2.83
ARHGEF5	S983	Hyper	8.31	1.78	3.27	4.04	4.23
CCDC6	S240	Hyper	2.00	1.89	2.01	1.92	1.74
CCDC6	S52	Hyper	6.18	3.01	3.47	7.33	2.77
ZRANB2	S307	Hyper	9.22	2.24	2.00	1.87	2.47
SH2D3A	S180	Hyper	5.53	2.20	2.85	2.33	4.81
CFL1	T25	Hyper	6.16	2.09	2.50	2.40	1.79
HSF1	S307	Hyper	8.27	2.09	2.70	2.36	1.86
LAD1	S177	Hyper	4.19	2.33	6.06	3.72	4.14
LAD1	S64	Hyper	4.04	1.84	3.49	2.22	2.04
LMNB1	S393	Hyper	1.75	2.36	2.65	5.34	1.74
TCF20	S574	Hyper	32.06	2.39	3.59	2.38	2.09
TCF20	S640	Hyper	8.31	2.28	2.38	2.61	2.08
CEBPZ	S629	Hyper	11.57	2.81	3.65	4.85	2.53
RBM6	S1025	Hyper	3.99	1.72	2.03	2.85	2.06
RBM6	S891	Hyper	10.50	2.12	2.42	3.51	1.99
AKAP8	S328	Hyper	9.62	2.07	2.68	1.79	1.88
AKAP8	S339	Hyper	7.01	3.16	2.54	4.04	2.05
STUB1	S19	Hyper	4.70	2.24	3.84	3.35	1.78
STUB1	S23	Hyper	5.09	2.65	2.94	3.35	1.78
MCM4	S120	Hyper	15.79	2.63	4.46	2.64	3.71
MCM6	S762	Hyper	7.58	2.55	4.83	1.83	2.00
MLLT1	S475	Hyper	5.97	2.96	2.43	4.60	1.55
ORC2	T226	Hyper	17.23	2.16	6.82	4.02	3.26
PRKAB1	S96	Hyper	5.44	1.95	2.25	1.80	2.64

RANBP2	S781	Hyper	9.11	2.93	3.31	2.74	4.15
RANBP2	T1396	Hyper	7.28	1.90	3.39	2.92	3.03
RANBP2	T2153	Hyper	6.67	2.41	3.69	3.09	2.39
RANBP2	T799	Hyper	9.71	2.86	4.36	3.18	3.13
SRSF6	S303	Hyper	7.68	1.88	2.42	2.00	1.87
XRCC1	S241	Hyper	8.96	3.23	8.26	5.45	3.30
XRCC1	S447	Hyper	7.62	2.36	3.44	3.67	1.81
XRCC1	T453	Hyper	8.43	2.36	3.25	3.35	3.65
PGRMC2	T235	Hyper	3.67	1.69	1.72	1.73	2.11
TACC3	S434	Hyper	16.26	1.87	3.75	2.02	1.85
NOP56	S519	Hyper	5.74	2.72	2.32	2.08	1.93
ANP32B	T15	Hyper	7.43	2.47	2.45	4.35	2.02
ARFGEF1	S52	Hyper	7.46	2.21	3.20	4.64	2.72
RGS14	S288	Hyper	4.35	2.65	1.68	1.95	1.79
SLC12A7	T973	Hyper	4.38	1.52	1.99	1.93	1.95
NUDC	S139	Hyper	11.25	3.08	3.36	2.08	1.94
NUDC	T145	Hyper	6.17	2.91	3.18	3.89	1.92
KIF1C	S676	Hyper	7.75	1.68	2.20	1.85	2.34
SRCAP	S2430	Hyper	11.71	1.93	3.05	3.09	3.28
SRCAP	S2869	Hyper	1.96	2.28	3.33	4.61	1.92
SUB1	S118	Hyper	5.39	1.84	2.85	1.92	1.66
SUB1	S15	Hyper	4.49	2.51	3.33	2.53	2.51
SUB1	S19	Hyper	7.11	3.23	3.44	1.80	2.07
AKAP13	S1686	Hyper	2.48	1.87	2.71	9.36	2.81
AKAP13	S983	Hyper	6.72	1.91	3.49	1.84	1.71
AKAP13	T953	Hyper	4.39	1.93	2.10	2.84	1.66
SF3B2	S309	Hyper	6.74	2.34	2.68	1.94	2.89
SF3B2	S347	Hyper	20.58	2.58	3.50	2.79	2.16
SF3B2	T311	Hyper	5.95	2.34	3.03	3.90	2.89
ZFHX3	S2230	Hyper	6.33	1.88	1.87	2.54	1.69
TMEM115	T329	Hyper	9.99	2.15	3.85	3.20	2.29
KATNA1	S170	Hyper	5.21	2.17	1.88	1.96	1.84
DDX20	T705	Hyper	5.42	2.29	3.00	1.81	1.80
SEC63	T537	Hyper	9.00	2.50	2.59	3.13	2.75
PNKP	S114	Hyper	3.75	4.16	1.73	2.03	1.93
CBX3	S97	Hyper	2.51	2.40	2.80	3.33	2.23
OGFR	S378	Hyper	4.60	2.16	2.27	2.48	1.70
DDX42	S185	Hyper	6.12	2.10	2.53	2.25	1.59
DDX42	Y183	Hyper	7.37	1.96	2.59	3.21	2.23
CD2AP	S510	Hyper	11.03	2.47	3.84	2.61	3.87
CD2AP	S514	Hyper	10.53	2.67	4.89	2.49	2.99
CD2AP	T512	Hyper	8.73	2.85	4.92	4.51	3.31
AATF	S321	Hyper	5.25	2.65	3.48	2.15	2.75

RABGAP1	S56	Hyper	6.11	1.90	2.36	4.79	3.15
CAVIN1	S171	Hypo	0.17	0.18	0.18	0.10	0.32
KDM2A	S718	Hyper	4.65	1.64	2.14	2.17	2.25
SF3B1	S488	Hyper	8.66	2.78	2.92	2.35	1.96
SF3B1	T350	Hyper	6.39	2.18	1.93	2.12	2.01
PSD4	S134	Hyper	6.57	1.81	1.97	2.59	3.08
PSD4	S143	Hyper	6.93	1.97	2.19	2.61	2.70
VPS4A	S95	Hyper	4.06	1.66	2.09	1.98	2.15
VPS4A	S97	Hyper	4.18	1.90	2.09	2.82	1.77
VPS4A	S99	Hyper	4.18	1.74	2.13	4.39	2.37
TRA2A	S260	Hyper	3.27	3.47	2.71	3.56	1.95
TRA2A	S262	Hyper	5.32	3.70	2.63	2.22	3.07
PRRC2B	S563	Hyper	4.68	1.84	2.13	1.66	2.51
PAXBP1	S262	Hyper	4.89	2.37	2.60	4.81	1.80
ANAPC2	S314	Hyper	5.48	1.86	2.80	2.06	2.91
BAZ1A	T731	Hyper	10.06	1.95	2.48	2.70	2.06
NOB1	S201	Hyper	8.36	2.97	2.59	2.11	2.08
ATAD2	S342	Hyper	16.94	4.08	15.55	3.25	4.04
ZC3H7A	S738	Hyper	4.75	2.11	1.75	2.22	2.84
AP2A1	T653	Hyper	4.14	1.67	1.82	2.42	1.88
CELSR1	S2761	Hyper	11.46	2.14	1.96	2.89	2.08
CELSR1	S2764	Hyper	9.57	2.14	1.70	2.89	2.49
CELSR1	S2867	Hyper	5.88	2.78	1.86	2.28	2.67
ZNF318	S1856	Hyper	11.49	2.28	2.74	3.15	1.81
PELP1	S531	Hyper	10.30	2.55	2.73	3.71	1.95
ERO1A	S106	Hyper	4.93	2.15	4.75	2.27	2.30
DNTTIP2	S117	Hyper	3.31	1.70	2.57	2.80	1.74
DNTTIP2	T232	Hyper	3.80	2.25	2.45	2.18	2.23
MAGED2	S191	Hyper	7.34	2.10	2.48	2.37	2.49
MAGED2	S194	Hyper	7.33	2.34	2.20	2.27	2.23
MDC1	S498	Hyper	9.18	2.31	2.34	2.40	2.26
PHF14	T287	Hyper	7.21	2.04	2.88	1.75	2.95
SETD1A	S464	Hyper	6.22	2.35	3.80	5.79	2.29
KMT2B	S2288	Hyper	4.70	1.91	5.71	2.91	2.01
KMT2B	T2083	Hyper	5.28	1.82	2.08	2.14	1.90
PDAP1	S63	Hyper	2.60	1.75	2.70	2.71	2.06
SPEN	S1380	Hyper	2.88	2.01	2.27	3.46	1.69
SPEN	S1918	Hyper	6.97	2.07	4.13	4.11	1.72
SPEN	S727	Hyper	6.09	2.11	2.71	1.93	1.74
SPEN	S736	Hyper	10.04	1.83	2.18	2.45	3.14
CEP170B	S918	Hyper	3.66	1.73	2.13	2.06	1.60
PDS5B	S1177	Hyper	4.60	1.99	1.74	3.24	1.66
PDS5B	S1182	Hyper	4.94	1.89	1.88	4.68	1.66

ZNF609	S576	Hyper	8.27	1.65	2.22	2.55	1.69
TBC1D9B	S432	Hyper	3.25	2.06	1.91	5.57	2.52
RRP1B	S736	Hyper	2.09	2.21	1.74	2.25	2.19
SIPA1L3	S100	Hyper	4.24	2.00	2.81	2.07	2.23
RCOR1	S260	Hyper	6.09	2.07	2.87	2.37	2.32
RCOR1	S460	Hyper	19.72	1.88	3.10	19.86	1.93
ZC3H4	S1275	Hyper	7.11	1.91	2.44	2.83	1.82
PRRC2C	S924	Hyper	15.11	1.97	4.25	2.51	2.33
FKBP15	S1195	Hyper	9.62	1.73	2.91	1.81	2.24
USP24	S1943	Hyper	12.03	2.62	3.07	2.84	1.83
LARP1	S440	Hyper	4.03	2.07	3.02	1.90	2.11
LARP1	S471	Hyper	4.30	2.34	2.15	2.44	1.87
LARP1	S554	Hyper	4.08	1.94	2.83	2.73	2.25
LARP1	T449	Hyper	3.75	1.84	2.95	2.63	1.86
SCRIB	S1306	Hyper	5.01	1.74	2.20	2.67	2.09
SCRIB	S1309	Hyper	5.59	1.78	2.20	2.67	2.09
NIPBL	S318	Hyper	8.22	1.89	2.11	2.04	1.60
C2CD2	S435	Hyper	3.34	1.83	3.26	2.64	6.80
C2CD2	S441	Hyper	5.31	2.69	2.90	2.49	1.97
IBTK	S1045	Hyper	7.97	1.76	2.99	3.09	1.61
GORASP2	T415	Hyper	8.19	1.86	3.15	1.78	2.04
ANKRD17	S2043	Hyper	3.16	2.22	2.02	2.36	1.97
ANKRD17	S2044	Hyper	4.26	2.03	1.94	2.16	1.96
ANKRD17	S2046	Hyper	4.04	2.42	1.94	2.30	1.84
GPATCH4	S135	Hyper	12.30	3.10	5.43	3.50	3.02
NOC2L	S49	Hyper	11.96	3.57	3.23	2.60	2.12
RSL1D1	S427	Hyper	21.10	5.77	6.22	7.17	4.34
EIF5B	S113	Hyper	5.29	2.33	2.65	4.77	2.38
EIF5B	S1168	Hyper	4.79	1.98	3.32	2.29	2.30
TRIM33	S862	Hyper	6.02	2.54	3.04	2.33	1.77
NOP58	T508	Hyper	13.08	2.52	4.13	7.54	2.44
NOP58	T510	Hyper	13.80	3.29	4.09	8.56	3.31
UTP18	S121	Hyper	7.30	3.29	3.41	3.24	2.80
WBP11	S361	Hyper	5.77	1.95	4.04	1.77	2.08
WBP11	S364	Hyper	5.67	1.95	4.34	1.87	2.85
NUP98	T1053	Hyper	4.73	2.21	2.35	11.53	1.79
NUP98	T529	Hyper	4.34	2.67	2.65	2.52	2.16
SRRM2	S1083	Hyper	7.02	2.11	2.66	2.72	1.87
SRRM2	S1132	Hyper	14.53	2.49	3.40	2.57	1.97
SRRM2	S1320	Hyper	8.62	2.47	2.70	2.95	1.99
SRRM2	S1326	Hyper	11.32	2.43	2.76	2.87	2.01
SRRM2	S1329	Hyper	11.32	2.44	3.25	2.87	2.41
SRRM2	S1424	Hyper	15.09	2.53	2.17	2.57	2.26

SRRM2	S1462	Hyper	5.64	2.01	2.75	2.97	2.40
SRRM2	S1857	Hyper	14.60	2.41	3.23	2.99	1.98
SRRM2	S1925	Hyper	43.54	2.30	2.54	3.37	3.95
SRRM2	S1948	Hyper	43.54	2.30	2.54	3.37	3.95
SRRM2	S1960	Hyper	43.54	2.30	2.54	3.37	3.95
SRRM2	S2121	Hyper	4.79	1.93	2.76	2.89	2.71
SRRM2	S2132	Hyper	8.16	1.90	2.72	2.66	1.65
SRRM2	S2398	Hyper	7.67	2.13	2.82	2.07	1.77
SRRM2	S2449	Hyper	4.09	2.08	2.33	2.34	1.85
SRRM2	S2688	Hyper	13.74	1.82	3.15	2.31	1.82
SRRM2	S297	Hyper	5.66	1.96	2.94	2.05	2.62
SRRM2	S322	Hyper	9.03	2.55	2.83	83.62	2.50
SRRM2	S323	Hyper	12.22	2.47	2.83	84.61	4.15
SRRM2	S353	Hyper	11.12	2.37	2.87	6.68	2.24
SRRM2	S440	Hyper	2.93	2.62	2.58	1.66	3.73
SRRM2	S510	Hyper	12.90	2.64	3.12	4.55	1.80
SRRM2	S778	Hyper	8.76	2.41	2.37	2.04	1.76
SRRM2	S783	Hyper	8.76	2.05	2.24	2.30	2.28
SRRM2	S838	Hyper	2.55	3.38	2.44	17.46	4.00
SRRM2	S864	Hyper	13.08	1.96	2.65	2.12	1.88
SRRM2	S875	Hyper	10.15	2.08	3.16	1.65	2.01
SRRM2	S876	Hyper	8.61	2.08	3.11	6.84	2.01
SRRM2	S970	Hyper	11.38	2.23	2.85	4.35	2.09
SRRM2	S972	Hyper	9.10	2.22	2.85	3.56	2.21
SRRM2	S973	Hyper	9.10	2.11	2.39	4.16	2.22
SRRM2	S974	Hyper	11.38	2.02	2.64	4.19	2.17
SRRM2	S994	Hyper	18.21	2.01	2.76	2.42	1.78
SRRM2	T1003	Hyper	9.16	2.14	2.77	2.34	2.02
SRRM2	T1492	Hyper	7.05	2.12	2.46	2.71	1.64
SRRM2	T2034	Hyper	5.69	1.98	3.33	2.90	1.72
SRRM2	T2104	Hyper	8.05	2.42	2.59	2.57	1.84
SRRM2	T866	Hyper	9.54	1.96	3.10	4.35	2.83
SRRM2	T983	Hyper	11.44	2.45	2.76	3.79	2.07
CENPF	S3079	Hyper	5.09	2.08	5.84	2.83	1.89
HACD3	S114	Hyper	4.80	2.32	2.08	1.84	1.94
RSF1	S1282	Hyper	12.93	1.87	2.87	6.26	3.39
RSF1	S1310	Hyper	10.80	1.73	3.02	4.43	1.91
RSF1	S1370	Hyper	6.38	1.90	1.73	2.73	2.07
RSF1	S1375	Hyper	6.66	1.92	4.88	2.23	1.97
RSF1	S397	Hyper	9.70	2.59	3.42	4.56	2.14
RSF1	T1371	Hyper	6.16	1.86	1.73	2.76	3.06
RSF1	T628	Hyper	5.49	2.06	1.95	8.15	1.72
KDM3B	S314	Hyper	59.91	1.96	2.21	2.49	2.03

RNPC3	S108	Hyper	6.58	2.31	2.55	3.32	1.71
VPS13C	S3598	Hyper	5.39	2.21	3.15	1.97	2.57
CC2D1A	S455	Hyper	6.62	1.70	2.25	1.84	1.77
ANKHD1	S1598	Hyper	6.54	2.14	3.09	3.63	1.91
ALKBH5	S69	Hyper	5.48	1.78	2.66	4.13	1.81
TBC1D22B	S132	Hyper	8.94	1.76	3.36	3.11	3.21
CHD7	T2567	Hyper	4.03	2.25	2.36	1.75	2.84
PHIP	S1283	Hyper	2.07	2.59	3.03	3.16	5.40
PHIP	S1783	Hyper	4.95	2.04	2.05	2.35	2.07
IWS1	S422	Hyper	10.07	2.39	5.18	1.82	4.63
IWS1	S513	Hyper	13.05	2.72	2.78	3.96	2.39
KIF26B	S977	Hyper	13.59	1.98	4.27	2.68	1.96
ASXL2	S395	Hyper	8.41	2.14	2.78	2.01	1.70
ASXL2	S834	Hyper	5.84	1.79	2.17	2.22	2.07
ZC3H15	S381	Hyper	13.70	2.58	2.62	2.36	1.82
TERF2IP	S154	Hyper	6.87	2.36	2.48	2.21	2.03
SASH3	S38	Hyper	4.04	2.20	2.21	2.25	2.68
EML4	S134	Hyper	9.37	2.46	4.62	3.73	2.62
EML4	S146	Hyper	6.70	1.76	2.84	3.46	2.48
EML4	T897	Hyper	5.87	1.57	1.78	4.18	1.95
EML4	T899	Hyper	5.47	1.62	2.03	4.18	1.95
KIAA1217	S1551	Hyper	4.97	2.42	3.05	1.90	2.05
KIAA1217	S361	Hyper	2.16	1.73	1.74	3.60	1.94
KIAA1217	S365	Hyper	4.39	1.87	1.91	3.33	1.80
MEPCE	S254	Hyper	8.01	3.31	4.08	6.30	2.52
MEPCE	S60	Hyper	5.40	2.16	2.80	2.75	2.09
ZC3HAV1	S275	Hyper	3.18	1.75	2.13	1.72	1.79
ZC3HAV1	S280	Hyper	6.28	2.10	2.19	2.70	1.76
ZC3HAV1	S346	Hyper	6.57	2.12	3.00	7.41	1.62
ZC3HAV1	S631	Hyper	3.51	1.57	1.73	1.95	1.59
OTUD7B	S471	Hyper	7.25	1.75	2.66	2.53	5.37
UTP3	S368	Hyper	3.45	2.06	2.99	1.66	2.05
CBX8	S256	Hyper	10.08	1.68	3.00	8.45	2.28
GATAD2B	S122	Hyper	5.98	2.72	2.08	2.69	5.04
GATAD2B	T120	Hyper	4.35	2.00	2.06	3.16	5.04
PRR12	S1381	Hyper	3.79	1.91	2.38	2.42	1.62
NUFIP2	S214	Hyper	8.51	2.16	5.31	1.74	4.39
NUFIP2	S572	Hyper	6.15	2.16	2.96	2.80	3.68
NUFIP2	T87	Hyper	21.31	2.73	8.91	2.24	7.33
CAMSAP3	S334	Hyper	11.79	2.50	3.14	2.85	3.81
CAMSAP3	S814	Hyper	13.41	2.46	3.30	3.26	2.63
PLEKHA4	S575	Hyper	2.94	2.07	1.96	4.42	1.69
ALS2	S1335	Hyper	5.10	1.76	2.00	1.67	1.82

NCOA5	S29	Hyper	3.15	4.13	2.74	1.91	1.94
NCOA5	S34	Hyper	1.98	2.83	2.42	1.84	1.81
NDUFV3	S158	Hyper	5.22	1.88	2.29	1.76	1.87
PPP1R11	S77	Hyper	8.31	1.90	4.15	2.05	1.57
PGM5	S122	Hypo	0.47	0.23	0.52	0.18	0.32
UBE2O	S896	Hyper	5.01	1.86	1.81	2.57	2.63
CHTF18	S871	Hyper	9.66	2.42	3.71	2.12	5.09
GOLPH3	S36	Hyper	14.04	1.94	3.95	2.09	2.15
IFIH1	S301	Hyper	16.92	2.20	2.56	4.33	2.82
NCAPG	S674	Hyper	14.70	3.10	6.95	3.82	3.84
NCAPG	S975	Hyper	8.04	2.67	6.02	2.55	4.06
DNAJC1	S480	Hyper	2.90	1.88	3.53	3.09	1.96
NSD1	S486	Hyper	5.77	1.84	2.86	2.65	2.09
SUDS3	S53	Hyper	8.14	2.09	2.91	2.82	2.23
SUDS3	T49	Hyper	6.97	2.31	2.29	2.38	2.28
ANAPC1	S688	Hyper	3.10	2.07	3.87	2.44	1.63
NUCKS1	S181	Hyper	2.26	1.93	9.39	3.00	2.60
NUCKS1	S58	Hyper	2.46	1.84	1.90	2.76	1.65
NUCKS1	S61	Hyper	3.06	1.95	1.78	2.71	1.77
NUCKS1	S73	Hyper	5.04	2.35	2.29	2.31	2.32
NUCKS1	T179	Hyper	3.06	2.01	4.59	1.93	2.29
ACBD3	S43	Hyper	4.53	2.23	2.61	2.49	2.25
PLEKHG2	S1261	Hyper	3.01	1.98	1.93	2.52	1.66
CBFB	S173	Hyper	7.26	2.46	2.94	2.35	2.41
KRI1	S634	Hyper	9.00	1.98	2.13	2.56	1.86
MARCKSL1	S120	Hyper	8.49	1.68	2.01	4.29	3.67
MARCKSL1	T122	Hyper	9.27	2.93	2.01	5.50	3.67
RSRC2	S27	Hyper	12.49	1.97	2.11	1.76	2.15
RSRC2	S32	Hyper	8.32	1.97	1.91	2.08	1.93
DDX50	S41	Hyper	11.43	2.78	2.29	2.75	1.76
C2orf49	S189	Hyper	4.99	2.15	2.46	2.04	1.68
CCDC86	S102	Hyper	7.90	1.83	2.33	2.74	5.17
CCDC86	S110	Hyper	3.91	2.62	2.63	3.30	8.33
CCDC86	S113	Hyper	6.77	2.45	2.52	3.05	2.01
DSC2	S873	Hyper	3.51	1.54	3.97	4.16	2.30
NKAP	S149	Hyper	10.81	2.28	3.96	2.12	1.84
NKAP	S157	Hyper	9.55	2.20	4.50	2.92	2.01
NKAP	T161	Hyper	9.55	2.36	4.50	2.92	2.01
RNF219	S210	Hyper	22.08	4.84	6.29	6.00	3.15
NUP210	T1844	Hyper	9.52	2.71	3.64	4.63	2.30
TANC2	S400	Hyper	11.51	1.97	2.91	2.92	1.76
TTYH3	S496	Hyper	5.48	2.20	3.76	2.88	2.09
ARPC5L	S64	Hyper	3.94	2.06	2.56	2.04	1.60

EPPK1	S2508	Hyper	9.43	1.97	2.43	2.30	4.58
EPPK1	S3044	Hyper	9.43	1.97	2.43	2.30	4.58
EPPK1	S3575	Hyper	9.43	1.97	2.43	2.30	4.58
EPPK1	S4109	Hyper	9.43	1.97	2.43	2.30	4.58
HUWE1	S3757	Hyper	3.67	1.76	2.06	2.19	1.68
HUWE1	T3924	Hyper	4.81	1.86	2.19	4306.11	1.98
L3MBTL2	S683	Hyper	6.93	1.91	2.62	1.80	2.20
HNRNPU	S59	Hyper	5.85	1.87	2.81	3.05	1.88
NSRP1	S254	Hyper	8.03	2.13	3.40	6.88	3.05
PCNX3	S1955	Hyper	4.95	1.69	2.39	2.24	1.74
BAZ1B	S160	Hyper	19.80	3.15	2.11	6.11	2.48
BAZ1B	S947	Hyper	11.68	1.84	2.00	2.13	1.68
BUD13	S163	Hyper	5.44	1.97	1.73	1.96	1.86
LMNB2	S407	Hyper	1.75	2.36	2.65	5.34	1.74
SYAP1	T248	Hyper	3.68	1.78	2.83	2.55	2.00
CEP89	S44	Hyper	6.41	1.73	2.96	1.97	2.11
PRPF38A	S193	Hyper	4.74	1.83	2.28	6.60	3.80
PRPF38A	S194	Hyper	4.74	1.83	2.28	6.60	2.74
CASP2	S340	Hyper	8.82	2.89	2.10	3.74	2.04
PURB	S101	Hyper	9.66	2.13	2.87	2.66	1.90
PML	S403	Hyper	3.34	2.69	2.55	3.34	1.72
PML	S479	Hyper	3.39	1.90	2.13	2.15	1.97
PML	S482	Hyper	3.02	2.15	2.10	3.40	1.97
PML	T409	Hyper	7.73	2.66	2.55	4.59	1.72
GPRIN1	S615	Hyper	4.82	1.76	5.18	2.50	3.26
RBM33	S205	Hyper	5.52	2.50	2.83	4.16	1.62
RBM33	S765	Hyper	10.30	2.57	2.70	3.97	1.88
GIT2	S394	Hyper	4.66	3.15	2.93	5.44	1.90
MYO18A	S2041	Hyper	4.98	1.61	2.10	1.70	1.95
MYO18A	S2043	Hyper	4.35	1.78	2.02	2.50	1.64
GLCCI1	S145	Hyper	10.94	1.69	2.29	1.73	2.05
GLCCI1	S148	Hyper	3.06	1.58	2.67	2.62	2.13
SON	S1076	Hyper	3.47	2.21	2.84	2.02	2.18
SYNM	S777	Hypo	0.55	0.18	0.46	0.25	0.28
SRFBP1	S203	Hyper	12.43	3.04	3.71	5.01	2.76
PROSER2	T17	Hyper	5.99	2.27	2.23	1.95	17.27
UBN2	S13	Hyper	7.86	2.32	1.99	3.67	2.01
UBN2	S584	Hyper	20.14	2.69	3.23	4.12	1.79
DIP2B	S146	Hyper	4.62	1.74	2.52	2.07	2.17
DDX51	S83	Hyper	8.05	3.08	3.04	2.61	1.70
RETREG3	S313	Hyper	3.54	1.95	2.35	3.24	1.90
RETREG3	S320	Hyper	3.80	1.86	2.39	3.18	2.06
STT3B	S498	Hyper	7.91	2.31	2.32	3.68	2.17

STT3B	S499	Hyper	4.59	2.17	2.14	3.11	1.96
CRTC2	S613	Hyper	5.21	1.73	2.20	2.48	2.20
FAM83H	S516	Hyper	7.89	1.87	3.93	1.75	1.90
FAM83H	S523	Hyper	7.45	2.10	3.81	2.04	1.91
FAM83H	S892	Hyper	7.32	1.78	2.96	1.91	3.61
FAM83H	S914	Hyper	8.05	1.73	2.41	1.87	2.13
CCDC137	S19	Hyper	6.00	2.87	2.25	3.16	1.95
PLEC	S4613	Hyper	2.86	1.66	3.12	5.39	1.95
PLEC	Y4615	Hyper	2.52	1.83	2.67	5.35	1.95
PLEC	S4476	Hyper	2.86	1.66	3.12	5.39	1.95
PLEC	Y4478	Hyper	2.52	1.83	2.67	5.35	1.95
RBM12B	S280	Hyper	8.41	2.28	2.50	2.20	3.61
RBM12B	S710	Hyper	11.16	1.93	2.18	2.57	1.73
RBM12B	S718	Hyper	11.91	2.08	2.32	2.25	1.73
RBM12B	S839	Hyper	4.54	2.19	2.15	2.10	1.73
BLOC1S3	S65	Hyper	4.23	1.72	3.11	1.95	1.79

Table S3: Proteins enriched in the cell cycle pathway

Gene symbol	**Uniprot ID**	**ENSEMBLE ID**
AAAS	Q9NRG9	
AHCTF1	Q8WYP5	
ANAPC1	Q9H1A4	
ANAPC2	Q9UJX6	
CDC20	Q12834	
CDCA8	Q53HL2	
CDK1	P06493	ENSG00000170312
CENPF	P49454	ENSG00000117724
CEP152	O94986	
CLIP1	P30622	
CLSPN	Q9HAW4	
DIDO1	Q9BTC0-1	
GOLGA2	Q08379	
GORASP2	Q9H8Y8	
HDAC1	Q13547	
HSP90AA1	P07900	
HSP90AB1	P08238	
INCENP	Q9NQS7	
LIG1	P18858	
LMNB1	P20700	
MCM2	P33993, P49736	
MCM4	P33991	

MCM6	Q14566	
MDC1	Q14676	
NCAPG	Q9BPX3	
NIPBL	Q6KC79	
NUDC	Q9Y266	
NUP210	Q8TEM1	
NUP35	Q8NFH5	
NUP88	Q99567	
NUP98	P52948-3, P52948-4, P52948-5	
ORC2	Q13416	
PDS5A	Q29RF7	
PDS5B	Q9NTI5	
PHF8	Q9UPP1-3, Q9UPP1-1, Q9UPP1-2	
RANBP2	P49792	
RANGAP1	P46060	
RB1	P06400	
RBBP8	Q99708	
RSF1	Q96T23	
SET	Q01105	
TERF2IP	Q9NYB0	
TOP2A	P11388	ENSG00000131747
TP53BP1	Q12888	
TPR	P12270	
TUBA1C	P68363, Q9BQE3	
WEE1	P30291, Q99640	
WRAP53	Q9BUR4	

Table S4: Kinase-substrate links from KSEA analysis

Kinase.Gene	Substrate.Gene	Substrate.Mod	Source	log2FC
ADRBK1	CAV1	S37	NetworKIN	-2.23897
ADRBK1	GIT2	S394	NetworKIN	1.65423
ADRBK1	HDAC1	S421	NetworKIN	1.4713
ADRBK2	HSP90AA1	S385	NetworKIN	1.11314
AKT1	HSP90AB1	S226	NetworKIN	1.50592
AKT1	CARHSP1	S30	NetworKIN	1.16146
AKT1	CARHSP1	S32	NetworKIN	1.131
AKT1	SLC9A1	S605	NetworKIN	1.26777
AKT1	CRTC2	S613	NetworKIN	1.14025
AKT1	DNMT1	S143	PhosphoSitePlus	1.47309
AKT2	CRTC2	S613	NetworKIN	1.14025

ARAF	PBK	S59	NetworKIN	1.90205
ATM	TP53BP1	S1073	NetworKIN	1.93093
ATM	TP53BP1	S836	NetworKIN	1.1972
ATM	PNKP	S114	PhosphoSitePlus	1.02181
ATR	TP53BP1	S1073	NetworKIN	1.93093
ATR	TP53BP1	S836	NetworKIN	1.1972
AURKA	TOP2A	S1106	NetworKIN	2.10765
AURKA	MKI67	S1131	NetworKIN	1.79269
AURKA	TOP2A	S1247	NetworKIN	2.44481
AURKA	TOP2A	S1393	NetworKIN	2.02465
AURKA	SKA3	S155	NetworKIN	1.18512
AURKA	CDCA8	S219	NetworKIN	1.78881
AURKA	MKI67	S2223	NetworKIN	1.8256
AURKA	INCENP	S263	NetworKIN	1.16519
AURKA	ANAPC2	S314	NetworKIN	1.48343
AURKA	MKI67	S357	NetworKIN	1.69444
AURKA	MKI67	S374	NetworKIN	2.27461
AURKA	CDC20	S41	NetworKIN	1.57018
AURKA	TACC3	S434	NetworKIN	1.01613
AURKA	PBK	S59	NetworKIN	1.90205
AURKA	NCAPG	S674	NetworKIN	1.94288
AURKA	ANAPC1	S688	NetworKIN	1.28971
AURKA	NCAPG	S975	NetworKIN	2.02109
AURKA	MKI67	T1923	NetworKIN	1.4364
AURKB	RACGAP1	S203	NetworKIN	2.17411
AURKB	ANAPC1	S688	NetworKIN	1.28971
AURKB	NCAPG	S975	NetworKIN	2.02109
AURKB	CDCA8	S219	PhosphoSitePlus	1.78881
AURKB	MKI67	S374	PhosphoSitePlus	2.27461
AURKC	INCENP	S263	NetworKIN	1.16519
BMX	CAV1	Y42	NetworKIN	-1.49196
BTK	CAV1	Y42	NetworKIN	-1.49196
BUB1	CDC20	S41	PhosphoSitePlus	1.57018
CAMK2A	KRT18	S30	NetworKIN	1.78629
CAMK4	SRFBP1	S203	NetworKIN	1.89092
CAMK4	CRTC2	S613	NetworKIN	1.14025
CDC42BPA	MYO18A	S2041	NetworKIN	0.96562
CDC42BPA	MYO18A	S2043	NetworKIN	1.01456
CDC42BPB	MYO18A	S2041	NetworKIN	0.96562
CDC42BPB	MYO18A	S2043	NetworKIN	1.01456
CDC7	MCM2	S139	PhosphoSitePlus	1.42615
CDK1	TP53BP1	S1033	NetworKIN	1.15002
CDK1	TP53BP1	S1099	NetworKIN	1.42362
CDK1	TP53BP1	S1106	NetworKIN	1.47492
CDK1	MKI67	S1131	NetworKIN	1.79269

CDK1	NUDC	S139	NetworKIN	1.62252
CDK1	TP53BP1	S1431	NetworKIN	1.15094
CDK1	SKA3	S155	NetworKIN	1.18512
CDK1	WEE1	S165	NetworKIN	1.71177
CDK1	GTF3C2	S167	NetworKIN	1.11175
CDK1	TP53BP1	S1683	NetworKIN	2.41735
CDK1	POLR2A	S1850	NetworKIN	1.19168
CDK1	POLR2A	S1917	NetworKIN	0.93825
CDK1	POLR2A	S1931	NetworKIN	0.93825
CDK1	CDCA8	S219	NetworKIN	1.78881
CDK1	MKI67	S2223	NetworKIN	1.8256
CDK1	XRCC1	S241	NetworKIN	2.4465
CDK1	INCENP	S263	NetworKIN	1.16519
CDK1	HSF1	S307	NetworKIN	1.23979
CDK1	ANAPC2	S314	NetworKIN	1.48343
CDK1	DES	S32	NetworKIN	-1.81277
CDK1	ATAD2	S342	NetworKIN	2.02787
CDK1	MKI67	S357	NetworKIN	1.69444
CDK1	CDC20	S41	NetworKIN	1.57018
CDK1	USP20	S413	NetworKIN	1.0049
CDK1	ASPM	S425	NetworKIN	1.53023
CDK1	TACC3	S434	NetworKIN	1.01613
CDK1	RANGAP1	S442	NetworKIN	2.07844
CDK1	XRCC1	S447	NetworKIN	1.78105
CDK1	LIG1	S51	NetworKIN	2.22764
CDK1	CD2AP	S510	NetworKIN	1.94251
CDK1	CD2AP	S514	NetworKIN	1.58184
CDK1	TP53BP1	S530	NetworKIN	1.07132
CDK1	PBK	S59	NetworKIN	1.90205
CDK1	NCL	S67	NetworKIN	2.06734
CDK1	SET	S7	NetworKIN	1.36837
CDK1	HSPD1	S70	NetworKIN	1.68869
CDK1	RBM15	S700	NetworKIN	1.53344
CDK1	RBM15	S741	NetworKIN	1.42711
CDK1	RANBP2	S781	NetworKIN	1.72538
CDK1	MSH6	S830	NetworKIN	1.56627
CDK1	SIN3A	S860	NetworKIN	1.27663
CDK1	DGCR8	S95	NetworKIN	1.09056
CDK1	NUCKS1	T179	NetworKIN	1.1932
CDK1	LIG1	T183	NetworKIN	2.07477
CDK1	NUP210	T1844	NetworKIN	1.86309
CDK1	MKI67	T1923	NetworKIN	1.4364
CDK1	RACGAP1	T342	NetworKIN	1.4927
CDK1	GORASP2	T415	NetworKIN	1.02916
CDK1	NCL	T76	NetworKIN	2.02747
CDK1	RANBP2	T799	NetworKIN	1.66902

CDK1	TOP2A	S1247	PhosphoSitePlus	2.44481
CDK1	RSF1	S1375	PhosphoSitePlus	1.15962
CDK1	TOP2A	S1393	PhosphoSitePlus	2.02465
CDK1	DNMT1	S154	PhosphoSitePlus	1.9667
CDK1	TCOF1	S156	PhosphoSitePlus	2.04302
CDK1	NUCKS1	S181	PhosphoSitePlus	1.37912
CDK1	ELAVL1	S202	PhosphoSitePlus	1.15523
CDK1	LIG3	S210	PhosphoSitePlus	1.46939
CDK1	RB1	S249	PhosphoSitePlus	1.32839
CDK1	PAICS	S27	PhosphoSitePlus	1.62824
CDK1	SQSTM1	S272	PhosphoSitePlus	1.31807
CDK1	HMGA1	S36	PhosphoSitePlus	1.28941
CDK1	OGFR	S378	PhosphoSitePlus	1.17955
CDK1	LMNB1	S393	PhosphoSitePlus	1.23714
CDK1	ANAPC1	S688	PhosphoSitePlus	1.28971
CDK1	RB1	S807	PhosphoSitePlus	1.60762
CDK1	RANBP2	T2153	PhosphoSitePlus	1.62718
CDK1	RB1	T373	PhosphoSitePlus	1.47486
CDK1	EZH2	T487	PhosphoSitePlus	1.26217
CDK1	NUP98	T529	PhosphoSitePlus	1.40661
CDK1	HMGA1	T53	PhosphoSitePlus	1.89968
CDK1	EIF4EBP1	T70	PhosphoSitePlus	1.16322
CDK1	SRRM2	T866	PhosphoSitePlus	1.63458
CDK2	WEE1	S165	NetworKIN	1.71177
CDK2	ANAPC2	S314	NetworKIN	1.48343
CDK2	LMNB1	S393	NetworKIN	1.23714
CDK2	AXIN1	S486	NetworKIN	2.0635
CDK2	AXIN1	S493	NetworKIN	2.10376
CDK2	ANAPC1	S688	NetworKIN	1.28971
CDK2	MCM2	S139	PhosphoSitePlus	1.42615
CDK2	NUDC	S139	PhosphoSitePlus	1.62252
CDK2	DNMT1	S154	PhosphoSitePlus	1.9667
CDK2	PHF6	S154	PhosphoSitePlus	1.7175
CDK2	TPR	S1676	PhosphoSitePlus	2.12743
CDK2	NUCKS1	S181	PhosphoSitePlus	1.37912
CDK2	POLR2A	S1917	PhosphoSitePlus	0.93825
CDK2	ELAVL1	S202	PhosphoSitePlus	1.15523
CDK2	ANKRD17	S2044	PhosphoSitePlus	1.01822
CDK2	LIG3	S210	PhosphoSitePlus	1.46939
CDK2	SNRNP70	S226	PhosphoSitePlus	1.51062
CDK2	RB1	S249	PhosphoSitePlus	1.32839
CDK2	PAICS	S27	PhosphoSitePlus	1.62824
CDK2	MKI67	S357	PhosphoSitePlus	1.69444
CDK2	HMGA1	S36	PhosphoSitePlus	1.28941
CDK2	RPL12	S38	PhosphoSitePlus	1.98349
CDK2	LIG1	S51	PhosphoSitePlus	2.22764

CDK2	PPP1R35	S52	PhosphoSitePlus	0.91985
CDK2	NCL	S67	PhosphoSitePlus	2.06734
CDK2	RB1	S807	PhosphoSitePlus	1.60762
CDK2	C17orf49	S96	PhosphoSitePlus	1.56743
CDK2	MARCKS	T150	PhosphoSitePlus	1.05804
CDK2	ORC2	T226	PhosphoSitePlus	2.00628
CDK2	RB1	T373	PhosphoSitePlus	1.47486
CDK2	NCL	T76	PhosphoSitePlus	2.02747
CDK3	RB1	S807	PhosphoSitePlus	1.60762
CDK4	MCM4	S120	NetworKIN	1.89214
CDK4	HSP90AA1	S385	NetworKIN	1.11314
CDK4	MCM6	S762	NetworKIN	1.3484
CDK4	CLSPN	S83	NetworKIN	2.27774
CDK4	RB1	S807	PhosphoSitePlus	1.60762
CDK4	RB1	T373	PhosphoSitePlus	1.47486
CDK5	NUDC	S139	NetworKIN	1.62252
CDK5	KATNA1	S170	NetworKIN	0.97103
CDK5	ABI1	S183	NetworKIN	0.84985
CDK5	SRFBP1	S203	NetworKIN	1.89092
CDK5	TACC3	S434	NetworKIN	1.01613
CDK5	SET	S7	NetworKIN	1.36837
CDK5	DNMT1	S154	PhosphoSitePlus	1.9667
CDK5	ELAVL1	S202	PhosphoSitePlus	1.15523
CDK5	RB1	S807	PhosphoSitePlus	1.60762
CDK6	HDAC1	S423	NetworKIN	1.5148
CDK6	RB1	S807	PhosphoSitePlus	1.60762
CDK7	POLR2A	S1850	NetworKIN	1.19168
CDK7	POLR2A	S1917	NetworKIN	0.93825
CDK7	POLR2A	S1931	NetworKIN	0.93825
CDK7	SSRP1	S444	NetworKIN	1.35103
CDK7	MCM2	S139	PhosphoSitePlus	1.42615
CDK7	CDK1	T161	PhosphoSitePlus	1.22206
CDK9	RB1	S807	PhosphoSitePlus	1.60762
CHEK1	RACGAP1	S203	PhosphoSitePlus	2.17411
CHEK1	CCDC6	S240	PhosphoSitePlus	0.93911
CHUK	SQSTM1	S24	NetworKIN	1.0846
CHUK	SQSTM1	S272	NetworKIN	1.31807
CHUK	HSP90AA1	S385	NetworKIN	1.11314
CLK1	SRRM2	S1424	NetworKIN	1.33784
CLK1	SRRM2	S1857	NetworKIN	1.5782
CLK1	SRRM2	S1925	NetworKIN	1.75443
CLK1	SRRM2	S1948	NetworKIN	1.75443
CLK1	BCLAF1	S196	NetworKIN	1.52943
CLK1	SRRM2	S1960	NetworKIN	1.75443
CLK1	SRRM2	S2132	NetworKIN	1.40875
CLK1	SNRNP70	S226	NetworKIN	1.51062

CLK1	SRRM2	S297	NetworKIN	1.38899
CLK1	RSRC2	S32	NetworKIN	0.97756
CLK1	SRRM2	S323	NetworKIN	2.05395
CLK1	SRRM2	S353	NetworKIN	1.5189
CLK1	SRRM2	S510	NetworKIN	1.63986
CLK1	PPIG	S745	NetworKIN	1.30784
CLK1	SRRM2	S783	NetworKIN	1.18805
CLK1	SRRM2	S972	NetworKIN	1.51052
CLK1	SRRM2	T1003	NetworKIN	1.22554
CLK1	SRRM2	T2034	NetworKIN	1.53495
CLK1	SRRM2	T2104	NetworKIN	1.36049
CLK1	SRRM2	T983	NetworKIN	1.46639
CLK2	CLK3	S224	NetworKIN	1.13123
CLK2	CLK3	S226	NetworKIN	1.08368
CLK2	TRA2B	S264	NetworKIN	1.71092
CLK2	TRA2B	S266	NetworKIN	1.61851
CLK3	CLK3	S224	NetworKIN	1.13123
CLK3	CLK3	S226	NetworKIN	1.08368
CSNK1A1	SSRP1	S444	NetworKIN	1.35103
CSNK1A1	AXIN1	S486	NetworKIN	2.0635
CSNK1A1	RANBP2	S781	NetworKIN	1.72538
CSNK1A1	RANBP2	T1396	NetworKIN	1.59812
CSNK1A1	RANBP2	T799	NetworKIN	1.66902
CSNK1D	CLIP1	S204	NetworKIN	1.01096
CSNK1D	CLIP2	S207	NetworKIN	1.1388
CSNK1D	BLOC1S3	S65	NetworKIN	0.96296
CSNK1D	CLSPN	S83	NetworKIN	2.27774
CSNK1D	DCK	T72	PhosphoSitePlus	0.86846
CSNK1E	AXIN1	S486	NetworKIN	2.0635
CSNK1G1	DIDO1	S152	NetworKIN	1.25872
CSNK1G1	AXIN1	S486	NetworKIN	2.0635
CSNK1G1	DIDO1	S805	NetworKIN	1.27503
CSNK1G1	DIDO1	S809	NetworKIN	0.94361
CSNK1G2	TOP2A	S1106	NetworKIN	2.10765
CSNK1G2	TOP2A	S1247	NetworKIN	2.44481
CSNK1G2	AXIN1	S486	NetworKIN	2.0635
CSNK2A1	TP53BP1	S1073	NetworKIN	1.93093
CSNK2A1	TOP2A	S1106	NetworKIN	2.10765
CSNK2A1	EIF5B	S113	NetworKIN	1.40389
CSNK2A1	SUB1	S118	NetworKIN	0.9392
CSNK2A1	TOP2A	S1247	NetworKIN	2.44481
CSNK2A1	RSF1	S1282	NetworKIN	1.76087
CSNK2A1	RSF1	S1310	NetworKIN	1.59464
CSNK2A1	ATRX	S1352	NetworKIN	1.31504
CSNK2A1	LIG1	S141	NetworKIN	1.05089
CSNK2A1	SUB1	S15	NetworKIN	1.33994

CSNK2A1	SUB1	S19	NetworKIN	1.68987
CSNK2A1	MYO18A	S2043	NetworKIN	1.01456
CSNK2A1	SPP1	S219	NetworKIN	1.62338
CSNK2A1	SPP1	S254	NetworKIN	2.28836
CSNK2A1	SPP1	S258	NetworKIN	2.05269
CSNK2A1	BRD7	S279	NetworKIN	1.14635
CSNK2A1	AATF	S321	NetworKIN	1.4587
CSNK2A1	NCL	S34	NetworKIN	1.48753
CSNK2A1	CAV1	S37	NetworKIN	-2.23897
CSNK2A1	HSP90AA1	S385	NetworKIN	1.11314
CSNK2A1	NCL	S41	NetworKIN	1.31122
CSNK2A1	NCL	S42	NetworKIN	1.31122
CSNK2A1	IWS1	S422	NetworKIN	2.21232
CSNK2A1	SSRP1	S444	NetworKIN	1.35103
CSNK2A1	IWS1	S513	NetworKIN	1.47573
CSNK2A1	SUDS3	S53	NetworKIN	1.49624
CSNK2A1	PRPF3	S619	NetworKIN	1.34078
CSNK2A1	PDAP1	S63	NetworKIN	1.37657
CSNK2A1	KIF1C	S676	NetworKIN	1.13621
CSNK2A1	ST13	S75	NetworKIN	1.32411
CSNK2A1	CLSPN	S83	NetworKIN	2.27774
CSNK2A1	SUDS3	T49	NetworKIN	1.20743
CSNK2A1	ABCF1	S109	PhosphoSitePlus	1.29626
CSNK2A1	MCM2	S139	PhosphoSitePlus	1.42615
CSNK2A1	HSP90AB1	S226	PhosphoSitePlus	1.50592
CSNK2A1	HDAC1	S421	PhosphoSitePlus	1.4713
CSNK2A1	HDAC1	S423	PhosphoSitePlus	1.5148
CSNK2A1	NCAPG	S975	PhosphoSitePlus	2.02109
CSNK2A2	SPP1	S219	NetworKIN	1.62338
CSNK2A2	SPP1	S234	NetworKIN	2.04894
CSNK2A2	SPP1	S254	NetworKIN	2.28836
CSNK2A2	SPP1	S258	NetworKIN	2.05269
CSNK2A2	SPP1	S263	NetworKIN	2.5022
CSNK2A2	SPP1	S267	NetworKIN	2.53247
CSNK2A2	NCL	S34	NetworKIN	1.48753
CSNK2A2	CAV1	S37	NetworKIN	-2.23897
CSNK2A2	HSP90AA1	S385	NetworKIN	1.11314
CSNK2A2	NCL	S41	NetworKIN	1.31122
CSNK2A2	NCL	S42	NetworKIN	1.31122
CSNK2A2	HDAC1	S421	NetworKIN	1.4713
CSNK2A2	HDAC1	S423	NetworKIN	1.5148
CSNK2A2	SSRP1	S444	NetworKIN	1.35103
CSNK2A2	KIF1C	S676	NetworKIN	1.13621
CSNK2A2	XRCC1	T453	NetworKIN	1.74251
DAPK1	RB1	T373	NetworKIN	1.47486

DYRK2	CARHSP1	S30	PhosphoSitePlus	1.16146
DYRK2	CARHSP1	S32	PhosphoSitePlus	1.131
EGFR	CAV1	Y42	NetworKIN	-1.49196
EIF2AK2	IFIH1	S301	NetworKIN	1.49612
EIF2AK2	HSP90AA1	S385	NetworKIN	1.11314
ERBB2	CAV1	Y42	NetworKIN	-1.49196
FGR	CAV1	Y42	NetworKIN	-1.49196
FYN	CAV1	Y42	NetworKIN	-1.49196
GRK1	CAV1	S37	NetworKIN	-2.23897
GRK5	CAV1	S37	NetworKIN	-2.23897
GSK3A	HSF1	S307	NetworKIN	1.23979
GSK3A	AXIN1	S486	NetworKIN	2.0635
GSK3A	AXIN1	S493	NetworKIN	2.10376
GSK3A	SEC31A	S799	NetworKIN	1.42551
GSK3A	EIF4EBP1	T70	NetworKIN	1.16322
GSK3B	CLIP2	S207	NetworKIN	1.1388
GSK3B	HSF1	S307	NetworKIN	1.23979
GSK3B	ACBD3	S43	NetworKIN	1.31631
GSK3B	ACLY	S481	NetworKIN	0.89944
GSK3B	AXIN1	S486	NetworKIN	2.0635
GSK3B	AXIN1	S493	NetworKIN	2.10376
GSK3B	EIF4EBP1	T70	NetworKIN	1.16322
HIPK1	PML	S403	NetworKIN	1.42702
HIPK1	PML	T409	NetworKIN	1.4118
HIPK2	SUB1	S118	NetworKIN	0.9392
HIPK2	MCM4	S120	NetworKIN	1.89214
HIPK2	CAV1	S37	NetworKIN	-2.23897
HIPK2	PML	S403	NetworKIN	1.42702
HIPK2	RANGAP1	S442	NetworKIN	2.07844
HIPK2	AXIN1	S486	NetworKIN	2.0635
HIPK2	RANBP2	S781	NetworKIN	1.72538
HIPK2	RB1	S807	NetworKIN	1.60762
HIPK2	VPS4A	S95	NetworKIN	1.06374
HIPK2	NCL	T76	NetworKIN	2.02747
HIPK2	HMGA1	S36	PhosphoSitePlus	1.28941
HIPK2	HMGA1	T53	PhosphoSitePlus	1.89968
IKBKB	SQSTM1	S24	NetworKIN	1.0846
IKBKB	SQSTM1	S272	NetworKIN	1.31807
IKBKB	HSP90AA1	S385	NetworKIN	1.11314
INSR	CAV1	Y42	NetworKIN	-1.49196

KDR	CAV1	Y42	NetworKIN	-1.49196
MAP2K1	EIF4EBP1	T70	NetworKIN	1.16322
MAP3K8	CDK1	T161	PhosphoSitePlus	1.22206
MAP3K8	EIF4EBP1	T70	PhosphoSitePlus	1.16322
MAPK1	MARCKS	S145	NetworKIN	1.32334
MAPK1	TPR	S1676	NetworKIN	2.12743
MAPK1	ETV6	S22	NetworKIN	1.14926
MAPK1	RB1	S249	NetworKIN	1.32839
MAPK1	AXIN1	S486	NetworKIN	2.0635
MAPK1	RB1	S807	NetworKIN	1.60762
MAPK1	MARCKS	T150	NetworKIN	1.05804
MAPK1	RB1	T373	NetworKIN	1.47486
MAPK1	HUWE1	T3924	NetworKIN	1.12847
MAPK1	GORASP2	T415	NetworKIN	1.02916
MAPK1	DDX20	T705	NetworKIN	1.19313
MAPK1	RANBP2	T799	NetworKIN	1.66902
MAPK1	TOP2A	S1247	PhosphoSitePlus	2.44481
MAPK1	TOP2A	S1393	PhosphoSitePlus	2.02465
MAPK1	ABI1	S183	PhosphoSitePlus	0.84985
MAPK1	PGK1	S203	PhosphoSitePlus	1.67388
MAPK1	HNRNPK	S284	PhosphoSitePlus	1.22544
MAPK1	CTTN	S418	PhosphoSitePlus	1.15428
MAPK1	EIF4EBP1	T70	PhosphoSitePlus	1.16322
MAPK1	RBM17	T71	PhosphoSitePlus	1.3646
MAPK11	PML	S403	NetworKIN	1.42702
MAPK11	PML	T409	NetworKIN	1.4118
MAPK12	DIDO1	S805	NetworKIN	1.27503
MAPK13	EIF4EBP1	T70	NetworKIN	1.16322
MAPK13	SQSTM1	S272	PhosphoSitePlus	1.31807
MAPK14	ETV6	S22	PhosphoSitePlus	1.14926
MAPK3	PAK4	S104	NetworKIN	0.94463
MAPK3	TERF2IP	S154	NetworKIN	1.23622
MAPK3	ETV6	S22	NetworKIN	1.14926
MAPK3	SQSTM1	S272	NetworKIN	1.31807
MAPK3	DES	S32	NetworKIN	-1.81277
MAPK3	AXIN1	S486	NetworKIN	2.0635
MAPK3	AXIN1	S493	NetworKIN	2.10376
MAPK3	CD2AP	S510	NetworKIN	1.94251
MAPK3	CD2AP	S514	NetworKIN	1.58184
MAPK3	ANAPC1	S688	NetworKIN	1.28971
MAPK3	RB1	S807	NetworKIN	1.60762
MAPK3	CHD4	T1542	NetworKIN	1.11205
MAPK3	RB1	T373	NetworKIN	1.47486
MAPK3	HUWE1	T3924	NetworKIN	1.12847
MAPK3	EIF4EBP1	T70	NetworKIN	1.16322

MAPK3	SGTA	T81	NetworKIN	1.12051
MAPK3	TOP2A	S1247	PhosphoSitePlus	2.44481
MAPK3	TOP2A	S1393	PhosphoSitePlus	2.02465
MAPK3	ABI1	S183	PhosphoSitePlus	0.84985
MAPK3	HNRNPK	S284	PhosphoSitePlus	1.22544
MAPK3	HSF1	S307	PhosphoSitePlus	1.23979
MAPK3	CTTN	S418	PhosphoSitePlus	1.15428
MAPK7	TERF2IP	S154	NetworKIN	1.23622
MAPK7	PML	S403	PhosphoSitePlus	1.42702
MAPK7	PML	T409	PhosphoSitePlus	1.4118
MAPK8	RB1	S249	NetworKIN	1.32839
MAPK8	HSF1	S307	NetworKIN	1.23979
MAPK8	AXIN1	S486	NetworKIN	2.0635
MAPK8	AXIN1	S493	NetworKIN	2.10376
MAPK8	RB1	S807	NetworKIN	1.60762
MAPK9	RB1	S249	NetworKIN	1.32839
MAPK9	RB1	S807	NetworKIN	1.60762
MARK3	PKP2	S155	NetworKIN	1.14792
MARK3	AXIN1	S493	NetworKIN	2.10376
MARK4	MYO18A	S2041	NetworKIN	0.96562
MARK4	MYO18A	S2043	NetworKIN	1.01456
MTOR	SRRM2	S1326	PhosphoSitePlus	1.46519
MTOR	SRRM2	S1329	PhosphoSitePlus	1.51865
MTOR	DAP	S51	PhosphoSitePlus	1.52547
MTOR	DNMT1	S714	PhosphoSitePlus	1.4996
MTOR	EIF4EBP1	T70	PhosphoSitePlus	1.16322
NEK1	VDAC1	S104	NetworKIN	1.7176
NEK2	TOP2A	S1106	NetworKIN	2.10765
NEK2	MKI67	S1131	NetworKIN	1.79269
NEK2	TOP2A	S1247	NetworKIN	2.44481
NEK2	TOP2A	S1393	NetworKIN	2.02465
NEK2	TPR	S1676	NetworKIN	2.12743
NEK2	CLIP1	S204	NetworKIN	1.01096
NEK2	CDCA8	S219	NetworKIN	1.78881
NEK2	MKI67	S2223	NetworKIN	1.8256
NEK2	INCENP	S263	NetworKIN	1.16519
NEK2	ANAPC2	S314	NetworKIN	1.48343
NEK2	MKI67	S357	NetworKIN	1.69444
NEK2	MKI67	S374	NetworKIN	2.27461
NEK2	CDC20	S41	NetworKIN	1.57018
NEK2	ASPM	S425	NetworKIN	1.53023
NEK2	RANGAP1	S442	NetworKIN	2.07844
NEK2	PBK	S59	NetworKIN	1.90205
NEK2	NCAPG	S674	NetworKIN	1.94288
NEK2	ANAPC1	S688	NetworKIN	1.28971
NEK2	NCAPG	S975	NetworKIN	2.02109

NEK2	MKI67	T1923	NetworKIN	1.4364
PAK1	GIT2	S394	NetworKIN	1.65423
PAK1	CTTN	S418	PhosphoSitePlus	1.15428
PAK2	MYO18A	S2041	NetworKIN	0.96562
PAK3	GIT2	S394	NetworKIN	1.65423
PAK4	PAK4	S104	NetworKIN	0.94463
PDK1	HSP90AA1	S385	NetworKIN	1.11314
PIM1	CBX3	S97	NetworKIN	1.32785
PKD1	OSBP	S389	NetworKIN	1.32172
PKD1	SLC9A1	S605	NetworKIN	1.26777
PKD1	CFL1	T25	NetworKIN	1.26505
PKM	AKT1S1	S203	PhosphoSitePlus	1.08363
PLK1	TP53BP1	S1072	NetworKIN	1.70646
PLK1	TP53BP1	S1073	NetworKIN	1.93093
PLK1	MCM2	S139	NetworKIN	1.42615
PLK1	TP53BP1	S1431	NetworKIN	1.15094
PLK1	TP53BP1	S1623	NetworKIN	1.27193
PLK1	TP53BP1	S1683	NetworKIN	2.41735
PLK1	CLIP1	S204	NetworKIN	1.01096
PLK1	CDCA8	S219	NetworKIN	1.78881
PLK1	TP53BP1	S530	NetworKIN	1.07132
PLK1	TP53BP1	S644	NetworKIN	1.15098
PLK1	TP53BP1	S645	NetworKIN	0.95277
PLK1	CLSPN	S83	NetworKIN	2.27774
PLK1	TP53BP1	S836	NetworKIN	1.1972
PLK1	TP53BP1	S839	NetworKIN	1.43801
PLK1	NUDC	T145	NetworKIN	1.66862
PLK1	HNRNPU	S59	PhosphoSitePlus	1.4917
PLK1	ANAPC1	S688	PhosphoSitePlus	1.28971
PLK4	TOP2A	S1106	NetworKIN	2.10765
PLK4	TOP2A	S1247	NetworKIN	2.44481
PLK4	PBK	S59	NetworKIN	1.90205
PLK4	NCAPG	S674	NetworKIN	1.94288
PLK4	NCAPG	S975	NetworKIN	2.02109
PRKAA1	PRKAB1	S96	NetworKIN	1.17051
PRKAA2	CRTC2	S613	NetworKIN	1.14025
PRKAA2	PRKAB1	S96	NetworKIN	1.17051
PRKACB	ITPR3	S2670	NetworKIN	0.95805
PRKACG	ITPR3	S2670	NetworKIN	0.95805
PRKCA	CLIP1	S204	NetworKIN	1.01096
PRKCA	ITPR3	S2670	NetworKIN	0.95805
PRKCA	CAV1	S37	NetworKIN	-2.23897
PRKCA	MARCKS	T150	NetworKIN	1.05804
PRKCB	PPP1R13L	S134	NetworKIN	1.04302
PRKCB	SRRM2	S1948	NetworKIN	1.75443
PRKCB	SRRM2	S1960	NetworKIN	1.75443

PRKCB	CLIP1	S204	NetworKIN	1.01096
PRKCB	ZC3HAV1	S280	NetworKIN	1.12906
PRKCB	NCOA5	S34	NetworKIN	0.98535
PRKCB	PRKAB1	S96	NetworKIN	1.17051
PRKCB	CARHSP1	T45	NetworKIN	1.41489
PRKCB	EEF2	T59	NetworKIN	1.40194
PRKCD	MARCKS	T150	NetworKIN	1.05804
PRKCE	CAV1	S37	NetworKIN	-2.23897
PRKCE	MARCKS	T150	NetworKIN	1.05804
PRKCG	ITPR3	S2670	NetworKIN	0.95805
PRKCG	MARCKS	T150	NetworKIN	1.05804
PRKCI	SQSTM1	S24	NetworKIN	1.0846
PRKCZ	SQSTM1	S24	NetworKIN	1.0846
PRKCZ	MARCKS	T150	NetworKIN	1.05804
PRKDC	TP53BP1	S1033	NetworKIN	1.15002
PRKDC	TP53BP1	S1073	NetworKIN	1.93093
PRKDC	TP53BP1	S1099	NetworKIN	1.42362
PRKDC	TP53BP1	S1106	NetworKIN	1.47492
PRKDC	SUB1	S118	NetworKIN	0.9392
PRKDC	MCM4	S120	NetworKIN	1.89214
PRKDC	TP53BP1	S1431	NetworKIN	1.15094
PRKDC	SUB1	S15	NetworKIN	1.33994
PRKDC	TP53BP1	S1623	NetworKIN	1.27193
PRKDC	SUB1	S19	NetworKIN	1.68987
PRKDC	XRCC1	S241	NetworKIN	2.4465
PRKDC	HSF1	S307	NetworKIN	1.23979
PRKDC	XRCC1	S447	NetworKIN	1.78105
PRKDC	TP53BP1	S530	NetworKIN	1.07132
PRKDC	TP53BP1	S644	NetworKIN	1.15098
PRKDC	TP53BP1	S645	NetworKIN	0.95277
PRKDC	TP53BP1	S836	NetworKIN	1.1972
PRKDC	TP53BP1	S839	NetworKIN	1.43801
PRKDC	HNRNPU	S59	PhosphoSitePlus	1.4917
PRKG1	PGK1	S203	NetworKIN	1.67388
PRKG1	SPP1	S219	NetworKIN	1.62338
PRKG1	SPP1	S234	NetworKIN	2.04894
PRKG1	SPP1	S254	NetworKIN	2.28836
PRKG1	SPP1	S258	NetworKIN	2.05269
PRKG1	SPP1	S263	NetworKIN	2.5022
PRKG1	SPP1	S267	NetworKIN	2.53247
PRKG1	ITPR3	S2670	NetworKIN	0.95805
PRKG1	BLOC1S3	S65	NetworKIN	0.96296
PRKG2	ITPR3	S2670	NetworKIN	0.95805
PRKG2	BLOC1S3	S65	NetworKIN	0.96296
RAF1	PAK4	S104	NetworKIN	0.94463
RAF1	VDAC1	S104	NetworKIN	1.7176

RAF1	TERF2IP	S154	NetworKIN	1.23622
RAF1	HSP90AB1	S226	NetworKIN	1.50592
RAF1	RB1	S249	NetworKIN	1.32839
RAF1	HSP90AA1	S385	NetworKIN	1.11314
RAF1	PBK	S59	NetworKIN	1.90205
RAF1	RB1	S807	NetworKIN	1.60762
ROCK1	RTKN	S106	NetworKIN	1.35638
ROCK1	DES	S32	NetworKIN	-1.81277
ROCK1	RTKN	S543	NetworKIN	1.35739
ROCK1	SLC9A1	S605	NetworKIN	1.26777
ROCK1	CFL1	T25	NetworKIN	1.26505
ROCK2	RTKN	S106	NetworKIN	1.35638
RPS6KA2	YBX1	S165	NetworKIN	1.37003
RPS6KA2	YBX1	S174	NetworKIN	1.2611
RPS6KA2	CARHSP1	S30	NetworKIN	1.16146
RPS6KA2	CARHSP1	S32	NetworKIN	1.131
RPS6KA2	CARHSP1	T45	NetworKIN	1.41489
RPS6KA2	EIF4EBP1	T70	NetworKIN	1.16322
SRC	CAV1	Y42	NetworKIN	-1.49196
STK11	SGTA	T81	NetworKIN	1.12051
STK39	SLC12A7	T973	PhosphoSitePlus	0.96572
TGFBR2	CAV1	S37	NetworKIN	-2.23897
TGFBR2	HSP90AA1	S385	NetworKIN	1.11314
TTK	MKI67	S374	NetworKIN	2.27461
TTK	RSF1	T1371	NetworKIN	1.46563
TTK	NUCKS1	T179	NetworKIN	1.1932
TTK	MKI67	T1923	NetworKIN	1.4364
TTK	RACGAP1	T342	NetworKIN	1.4927
TTK	RSF1	T628	NetworKIN	1.04594
TTK	EIF4EBP1	T70	NetworKIN	1.16322

Table S5: Kinase enrichment score from KSEA analysis

Kinase.Gene	mS	Enrichment	m	z.score	p.value	FDR
ADRBK1	0.295517	0.220374816	3	-3.537	0.000202	0.001303
ADRBK2	1.113138	0.830096642	1	-0.44503	0.328148	0.453172
AKT1	1.279915	0.954467009	6	-0.29214	0.38509	0.460769
AKT2	1.14025	0.850315061	1	-0.39207	0.347502	0.453172
ARAF	1.902048	1.418408172	1	1.095946	0.136551	0.426205
ATM	1.383314	1.031574341	3	0.143246	0.443048	0.465652
ATR	1.564068	1.166367507	2	0.616272	0.268857	0.453172

AURKA	1.720302	1.282875442	18	3.143551	0.000835	0.004776
AURKB	1.909665	1.424087903	5	2.483876	0.006498	0.027887
AURKC	1.165187	0.868911153	1	-0.34336	0.365662	0.453172
BMX	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
BTK	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
BUB1	1.570181	1.170925806	1	0.44771	0.327181	0.453172
CAMK2A	1.786289	1.33208301	1	0.869833	0.192196	0.453172
CAMK4	1.515585	1.130212032	2	0.482342	0.314781	0.453172
CDC42BPA	0.990093	0.738338841	2	-0.96927	0.166206	0.450506
CDC42BPB	0.990093	0.738338841	2	-0.96927	0.166206	0.450506
CDC7	1.426154	1.063520806	1	0.166382	0.433928	0.460769
CDK1	1.495789	1.115449576	73	2.583704	0.004887	0.021886
CDK2	1.583902	1.181157796	31	2.641964	0.004121	0.019295
CDK3	1.607621	1.198845496	1	0.520841	0.301239	0.453172
CDK4	1.618984	1.207319172	6	1.330161	0.091733	0.337445
CDK5	1.383153	1.03145377	9	0.247163	0.402391	0.460769
CDK6	1.561213	1.164237936	2	0.608384	0.271467	0.453172
CDK7	1.177903	0.878393492	6	-0.78023	0.217628	0.453172
CDK9	1.607621	1.198845496	1	0.520841	0.301239	0.453172
CHEK1	1.556607	1.160803042	2	0.59566	0.275701	0.453172
CHUK	1.171936	0.873944053	3	-0.57189	0.283698	0.453172
CLK1	1.490059	1.111176607	20	1.302319	0.096404	0.342399
CLK2	1.386084	1.033639846	4	0.176227	0.430058	0.460769
CLK3	1.107453	0.825857558	2	-0.64507	0.25944	0.453172
CSNK1A1	1.681411	1.253873231	5	1.486932	0.068516	0.282288
CSNK1D	1.251783	0.933487813	5	-0.38956	0.348431	0.453172
CSNK1E	2.063504	1.538809821	1	1.411317	0.079076	0.301659
CSNK1G1	1.385214	1.032990831	4	0.172827	0.431394	0.460769
CSNK1G2	2.205322	1.6445674	3	2.924274	0.001726	0.00889
CSNK2A1	1.436305	1.071090659	38	1.147872	0.125511	0.41702
CSNK2A2	1.453001	1.083541469	16	0.875288	0.190709	0.453172
DAPK1	1.474865	1.099846117	1	0.261529	0.396842	0.460769
DYRK2	1.14623	0.854774581	2	-0.53796	0.295304	0.453172
EGFR	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
EIF2AK2	1.304631	0.972897977	2	-0.10039	0.460016	0.473816
ERBB2	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
FGR	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
FYN	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
GRK1	-2.23897	-1.669662118	1	-6.99271	1.35E-12	6.94E-11
GRK5	-2.23897	-1.669662118	1	-6.99271	1.35E-12	6.94E-11
GSK3A	1.599159	1.192535265	5	1.127676	0.129728	0.417563
GSK3B	1.417834	1.057316517	7	0.397208	0.345607	0.453172
HIPK1	1.41941	1.058491699	2	0.21667	0.414233	0.460769
HIPK2	1.314554	0.980297884	12	-0.17877	0.429059	0.460769
IKBKB	1.171936	0.873944053	3	-0.57189	0.283698	0.453172
INSR	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07

KDR	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07
MAP2K1	1.163223	0.867446581	1	-0.3472	0.36422	0.453172
MAP3K8	1.19264	0.889383762	2	-0.40975	0.340993	0.453172
MAPK1	1.452649	1.083278944	20	0.975527	0.164649	0.450506
MAPK11	1.41941	1.058491699	2	0.21667	0.414233	0.460769
MAPK12	1.275026	0.950820527	1	-0.12882	0.448751	0.466883
MAPK13	1.240646	0.925182765	2	-0.27714	0.390835	0.460769
MAPK14	1.149262	0.857035206	1	-0.37447	0.354027	0.453172
MAPK3	1.289196	0.961387589	22	-0.47438	0.317614	0.453172
MAPK7	1.358346	1.012954745	3	0.058773	0.476566	0.486003
MAPK8	1.668613	1.244329149	5	1.431032	0.076211	0.301659
MAPK9	1.468003	1.094729093	2	0.350903	0.36283	0.453172
MARK3	1.625841	1.212432744	2	0.786911	0.215667	0.453172
MARK4	0.990093	0.738338841	2	-0.96927	0.166206	0.450506
MTOR	1.434425	1.069688685	5	0.408166	0.341576	0.453172
NEK1	1.717597	1.280857859	1	0.735657	0.23097	0.453172
NEK2	1.775563	1.324084589	20	3.796317	7.34E-05	0.000504
PAK1	1.404252	1.04718829	2	0.174799	0.430619	0.460769
PAK2	0.965625	0.720092211	1	-0.73317	0.231728	0.453172
PAK3	1.654225	1.23359982	1	0.611873	0.270311	0.453172
PAK4	0.944628	0.704434222	1	-0.77418	0.219412	0.453172
PDK1	1.113138	0.830096642	1	-0.44503	0.328148	0.453172
PIM1	1.327853	0.990215183	1	-0.02563	0.489776	0.489776
PKD1	1.284846	0.95814408	3	-0.18989	0.424697	0.460769
PKM	1.083634	0.808094401	1	-0.50266	0.307601	0.453172
PLK1	1.484799	1.107254352	17	1.15832	0.123367	0.41702
PLK4	2.083697	1.553868127	5	3.243997	0.000589	0.003571
PRKAA1	1.170506	0.872877783	1	-0.33297	0.369577	0.453172
PRKAA2	1.155378	0.861596422	2	-0.51269	0.304086	0.453172
PRKACB	0.958051	0.714444052	1	-0.74796	0.227241	0.453172
PRKACG	0.958051	0.714444052	1	-0.74796	0.227241	0.453172
PRKCA	0.197021	0.146923652	4	-4.46897	3.93E-06	2.89E-05
PRKCB	1.296065	0.96651032	9	-0.26316	0.396213	0.460769
PRKCD	1.058043	0.789010921	1	-0.55265	0.290252	0.453172
PRKCE	-0.59047	-0.440325599	2	-5.33537	4.77E-08	4.09E-07
PRKCG	1.008047	0.751727486	2	-0.91967	0.178872	0.453172
PRKCI	1.084602	0.80881657	1	-0.50077	0.308266	0.453172
PRKCZ	1.071322	0.798913745	2	-0.74488	0.228172	0.453172
PRKDC	1.422781	1.061005509	19	0.696522	0.243051	0.453172
PRKG1	1.849214	1.379008277	9	2.978235	0.00145	0.007858
PRKG2	0.960504	0.716273083	2	-1.051	0.146628	0.444197
RAF1	1.419444	1.058517527	8	0.433531	0.332315	0.453172
ROCK1	0.686762	0.512136923	5	-2.85741	0.002136	0.010475
ROCK2	1.35638	1.011489081	1	0.030094	0.487996	0.489776
RPS6KA2	1.250284	0.932369881	6	-0.43392	0.332175	0.453172
SRC	-1.49196	-1.112595154	1	-5.53357	1.57E-08	1.47E-07

STK11	1.120514	0.835596824	1	-0.43063	0.333371	0.453172
STK39	0.965721	0.720163914	1	-0.73298	0.231785	0.453172
TGFBR2	-0.56292	-0.419782738	2	-5.25928	7.23E-08	5.73E-07
TTK	1.438814	1.072961703	7	0.50563	0.306558	0.453172