



Supplementary Material

Supplementary Table 1. Antibodies used in the experiment. Two slides were stained for RAB-25. The three primary antibodies for negative control were not included.

ANTIBODY NAME	GENE SYMBOL	ANIMAL OF ORIGIN	VENDOR	CATALOG NUMBER
14-3-3_beta	YWHAB	Rabbit	Santa Cruz	sc-628
14-3-3_epsilon	YWHAE	Mouse	Santa Cruz	sc-23957
14-3-3_zeta	YWHAZ	Rabbit	Santa Cruz	sc-1019
4E-BP1	EIF4EBP1	Rabbit	CST	9452
4E-BP1_pS65	EIF4EBP1	Rabbit	CST	9456
4E-BP1_pT37T46	EIF4EBP1	Rabbit	CST	9459
4E-BP1_pT70	EIF4EBP1	Rabbit	CST	9455
53BP1	TP53BP1	Rabbit	CST	4937
A-Raf_pS299	ARAF	Rabbit	CST	4431
ACC1	ACACA	Rabbit	Epitomics	1768-1
ACC_pS79	ACACA, ACACB	Rabbit	CST	3661
Acetyl-a-Tubulin-Lys40	TUBA1B	Rabbit	CST	5335
ACVRL1	ACVRL1	Rabbit	Epitomics	2940-1
ADAR1	ADAR	Rabbit	Abcam	ab88574
Akt	AKT1, AKT2, AKT3	Rabbit	CST	9272
Akt_pS473	AKT1, AKT2, AKT3	Rabbit	CST	9271
Akt_pT308	AKT1, AKT2, AKT3	Rabbit	CST	9275
AMPK_alpha	PRKAA1	Rabbit	CST	2532
AMPK_pT172	PRKAA1	Rabbit	CST	2535
Annexin-1	ANXA1	Mouse	BD Transduction	610066
Annexin_VII	ANXA7	Mouse	BD Biosciences	610668
AR	AR	Rabbit	Epitomics	1852-1
ARHI	DIRAS3	Mouse	Dr. Robert C Bast Jr.	Customer made
ARID1 A	ARID1A	Mouse	Abgent	AT1188a
ASNS	ASNS	Rabbit	Sigma	HPA029318
ATM	ATM	Rabbit	Abcam	ab32420
B-Raf	BRAF	Mouse	Santa Cruz	sc-5284
Bad_pS112	BAD	Rabbit	CST	9291
Bak	BAK1	Rabbit	Epitomics	1542-1
Bap1-c-4	BAP1	Rabbit	Alomine	APC-125
Bax	BAX	Rabbit	CST	2772
Bcl-2	BCL2	Mouse	Dako	Dako M0887
Bcl-xL	BCL2L1	Rabbit	CST	2762
Beclin	BECN1	Goat	Santa Cruz	sc-10086
beta-Catenin	CTNNB1	Rabbit	CST	9562
Bid	BID	Rabbit	Epitomics	1008-1
Bim	BCL2L11	Rabbit	Epitomics	1036-1
BRCA2	BRCA2	Rabbit	CST	9012
c-Jun_pS73	JUN	Rabbit	CST	9164
c-Kit	KIT	Rabbit	Epitomics	1522
c-Met_pY1235	MET	Rabbit	CST	3129
c-Myc	MYC	Rabbit	CST	9402
C-Raf	RAF1	Rabbit	Millipore	05-739

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Supplementary Table 1. (Continued)

ANTIBODY NAME	GENE SYMBOL	ANIMAL OF ORIGIN	VENDOR	CATALOG NUMBER
C-Raf_pS338	RAF1	Rabbit	CST	9427
Caspase-7_cleavedD198	CASP7	Rabbit	CST	9491
Caveolin-1	CAV1	Rabbit	CST	3238
CD20	MS4A1	Rabbit	Epitomics	1632
CD31	PECAM1	Mouse	Dako	M0823
CD49b	ITGA2	Mouse	BD	611016
CDK1	CDC2	Rabbit	CST	9112
Chk1	CHEK1	Rabbit	CST	2345
Chk1_pS345	CHEK1	Rabbit	CST	2348
Chk2	CHEK2	Mouse	CST	3440
Chk2_pT68	CHEK2	Rabbit	CST	2197
clAP	BIRC2	Rabbit	Millipore	07-759
Claudin-7	CLDN7	Rabbit	Novus	NB100-91714
Collagen_VI	COL6A1	Rabbit	Santa Cruz	SC-20649
Cyclin_B1	CCNB1	Rabbit	Epitomics	1495-1
Cyclin_D1	CCND1	Rabbit	Santa Cruz	SC-718
Cyclin_E1	CCNE1	Mouse	Santa Cruz	SC-247
Cyclin_E2	CCNE2	Rabbit	Epitomics	1142
DJ-1	PARK7	Rabbit	Abcam	ab76008
Dvl3	DVL3	Rabbit	CST	3218
E-Cadherin	CDH1	Rabbit	CST	4065
eEF2	EEF2	Rabbit	CST	2332
eEF2 K	EEF2K	Rabbit	CST	3692
EGFR	EGFR	Rabbit	CST	2232
EGFR_pY1068	EGFR	Rabbit	CST	2234
EGFR_pY1173	EGFR	Rabbit	Epitomics	1124
eIF4E	EIF4E	Rabbit	CST	9742
eIF4G	EIF4G1	Rabbit	CST	2498
ER-alpha	ESR1	Rabbit	Lab Vision	RM-9101-S
ER-alpha_pS118	ESR1	Rabbit	Epitomics	1091-1
ERK2	MAPK1	Rabbit	Santa Cruz	sc-154
ETS-1	ETS1	Rabbit	BethYl	A303-501 A
FASN	FASN	Rabbit	CST	3180
Fibronectin	FN1	Rabbit	Epitomics	1574-1
FoxM1	FOXM1	Rabbit	CST	5436
FOXO3a	FOXO3	Rabbit	CST	9467
FOXO3a_pS318_S321	FOXO3	Rabbit	CST	9465
G6PD	G6PD	Mouse	Santa Cruz	sc-373887
GAB2	GAB2	Rabbit	CST	3239
GAPDH	GAPDH	Mouse	Ambion	AM4300
GATA3	GATA3	Mouse	BD Biosciences	558686
GSK3-alpha-beta	GSK3A, GSK3B	Mouse	Santa Cruz	SC-7291
GSK3-alpha-beta_pS21_S9	GSK3A, GSK3B	Rabbit	CST	9331
GSK3_pS9	GSK3A, GSK3B	Rabbit	CST	9336
HER2	ERBB2	Mouse	Lab Vision	MS-325-P1
HER2_pY1248	ERBB2	Rabbit	Upstate (Millipore)	06-229

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Supplementary Table 1. (Continued)

ANTIBODY NAME	GENE SYMBOL	ANIMAL OF ORIGIN	VENDOR	CATALOG NUMBER
HER3	ERBB3	Mouse	Lab Vision	MS-201-P1 ABX
HER3_pY1289	ERBB3	Rabbit	CST	4791
Heregulin	NRG1	Rabbit	CST	2573
HSP70	HSPA1A	Rabbit	CST	4872
IGFBP2	IGFBP2	Rabbit	CST	3922
INPP4B	INPP4B	Goat	Santa Cruz	SC-12318
IRS1	IRS1	Rabbit	Upstate (Millipore)	06-248
JNK2	MAPK9	Rabbit	CST	4672
JNK_pT183_Y185	MAPK8	Rabbit	CST	4668
Ku80	XRCC5	Rabbit	CST	2180
Lck	LCK	Rabbit	CST	2752
LKB1	STK11	Mouse	Abcam	ab15095
MAPK_pT202_Y204	MAPK1, MAPK3	Rabbit	CST	4377
MEK1	MAP2K1	Rabbit	Epitomics	1235-1
MEK1_pS217_S221	MAP2K1	Rabbit	CST	9154
MIG-6	ERRF1	Mouse	Sigma	WH0054206M1
Mre11	MRE11A	Rabbit	CST	4847
mTOR	FRAP1	Rabbit	CST	2983
mTOR_pS2448	FRAP1	Rabbit	CST	2971
MYH11	MYH11	Rabbit	SDI/Novus	21370002
Myosin-IIa_pS1943	MYH9	Rabbit	CST	5026
N-Cadherin	CDH2	Rabbit	CST	4061
N-Ras	NRAS	Mouse	Santa Cruz	sc-31
NDRG1_pT346	NDRG1	Rabbit	CST	3217
NF-kB-p65_pS536	NFKB1	Rabbit	CST	3033
NF2	NF2	Rabbit	SDI	2271.00.02
Notch1	NOTCH1	Rabbit	CST	3268
P-Cadherin	CDH3	Rabbit	CST	2130
p21	CDKN1A	Rabbit	Santa Cruz	SC-397
p27	CDKN1B	Rabbit	Epitomics	1591-1
p27_pT157	CDKN1B	Rabbit	R&D	AF1555
p27_pT198	CDKN1B	Rabbit	Abcam	ab64949
p38_MAPK	MAPK14	Rabbit	CST	9212
p38_pT180_Y182	MAPK14	Rabbit	CST	9211
p53	TP53	Rabbit	CST	9282
p62-LCK-ligand	SQSTM1	Mouse	BD Transduction Lab	610833
p70S6 K	RPS6KB1	Rabbit	Epitomics	1494-1
p70S6 K_pT389	RPS6KB1	Rabbit	CST	9205
p90RSK	RPS6KA1	Rabbit	CST	9347
p90RSK_pT359_S363	RPS6KA1	Rabbit	CST	9344
PAI-1	SERPINE1	Mouse	BD Biosciences	612024
Paxillin	PXN	Rabbit	Epitomics	1500-1
PCNA	PCNA	Mouse	Abcam	ab29
PDCD4	PDCD4	Rabbit	Rockland	600-401-965
PDK1	PDK1	Rabbit	CST	3062
PDK1_pS241	PDK1	Rabbit	CST	3061

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Supplementary Table 1. (Continued)

ANTIBODY NAME	GENE SYMBOL	ANIMAL OF ORIGIN	VENDOR	CATALOG NUMBER
PEA-15	PEA15	Rabbit	CST	2780
PEA15_pS116	PEA15	Rabbit	Invitrogen	44-836G
PI3 K-p110-alpha	PIK3CA	Rabbit	CST	4255
PI3 K-p85	PIK3R1, PIK3R2	Rabbit	Upstate (Millipore)	06-195
PKC-alpha	PRKCA	Mouse	Upstate (Millipore)	05-154
PKC-alpha_pS657	PRKCA	Rabbit	Upstate (Millipore)	06-822
PKC-delta_pS664	PRKCD	Rabbit	Millipore	07-875
PKC-pan_Betall_pS660	PKC	Rabbit	CST	9371
PR	PGR	Rabbit	Epitomics	1483-1
PRAS40_pT246	AKT1S1	Rabbit	Biosource	441100G
PRDX1	PRDX1	Rabbit	Sigma/Atlas	HPA007730
PREX1	REX1	Rabbit	Abcam	ab102739
PTEN	PTEN	Rabbit	CST	9552
Rab-25	Rab25	Rabbit	CST	4314
Rab11	RAB11A, RAB11B	Rabbit	CST	3539
Rad50	RAD50	Mouse	Millipore	05-525
Rad51	RAD51	Mouse	Chem Biotech	na 71
Raptor	RPTOR	Rabbit	CST	2280
Rb_pS807_S811	RB1	Rabbit	CST	9308
RBM15	RBM15	Rabbit	SDI/Novus	21390002
Rictor	RICTOR	Rabbit	CST	2114
Rictor_pT1135	RICTOR	Rabbit	CST	3806
S6	RPS6	Rabbit	CST	2217
S6_pS235_S236	RPS6	Rabbit	CST	2211
S6_pS240_S244	RPS6	Rabbit	CST	2215
SCD1	SCD1	Mouse	Santa Cruz	sc-58420
SF2	SFRS1	Mouse	Invitrogen	32-4500
Shc_pY317	SHC1	Rabbit	CST	2431
Smad1	SMAD1	Rabbit	Epitomics	1649-1
Smad3	SMAD3	Rabbit	Epitomics	1735-1
Smad4	SMAD4	Mouse	Santa Cruz	sc-7966
Src	SRC	Mouse	Upstate (Millipore)	05-184
Src_pY416	SRC	Rabbit	CST	2101
Src_pY527	SRC	Rabbit	CST	2105
STAT3_pY705	STAT3	Rabbit	CST	9131
STAT5-alpha	STAT5A	Rabbit	Epitomics	1289-1
Stathmin	STMN1	Rabbit	Epitomics	1972-1
Syk	SYK	Mouse	Santa Cruz	sc-1240
TAZ	WWTR1	Rabbit	CST	2149
TFRC	TFRC	Rabbit	SDI/Novus	22500002
TIGAR	C12ORF5	Rabbit	Epitomics	S1711
Transglutaminase	TGM2	Mouse	Lab Vision	MS-224
TSC1	TSC1	Rabbit	CST	4906
Tuberin	TSC2	Rabbit	Epitomics	1613-1
Tuberin_pT1462	TSC2	Rabbit	CST	3617
VEGFR2	KDR	Rabbit	CST	2479

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Supplementary Table 1. (Continued)

ANTIBODY NAME	GENE SYMBOL	ANIMAL OF ORIGIN	VENDOR	CATALOG NUMBER
VHL	VHL	Mouse	BD Pharmingen	556347
XBP1	XBP1	Goat	Santa Cruz	sc-32136
XRCC1	XRCC1	Rabbit	CST	2735
YAP	YAP1	Rabbit	Santa Cruz	sc-15407
YAP_pS127	YAP1	Rabbit	CST	4911
YB-1	YBX1	Rabbit	SDI	1725.00.02
YB-1_pS102	YBX1	Rabbit	CST	2900
alpha-Catenin	CTNNA1	Mouse	Calbiochem	CA1030
c-Met	MET	Mouse	CST	3127
Caspase 8	CASP8	Mouse	CST	9746
ERCC1	ERCC1	Mouse	Lab Vision	MS-671-PO
FOXO3a	FOXO3	Rabbit	CST	2497
Gab2	GAB2	Rabbit	CST	3239
MSH2	MSH2	Mouse	CST	2850
MSH6	MSH6	Rabbit	SDI	2203.00.02
PARP_cleaved	PARP1	Mouse	CST	9546
Rb	RB1	Mouse	CST	9309
SETD2	SETD2	Rabbit	Abcam	ab69836
Smac	DIABLO	Mouse	CST	2954
Snail	SNAI2	Mouse	CST	3895
TTF1	TTF1	Rabbit	Epitomics	2044-1