Table SI. siRNA sequence for PTPN18.

Gene name	Sequence (5'-3')
si-PTPN18-1	GCGACUACAUUAAUGGCAATT
	UUGCCAUUAAUGUAGUCGUTT
si-PTPN18-2	GGACCCUCAAGGUCACAUUTT
	AAUGUGACCUUGAGGGUCCTT
si-PTPN18-3	CCUGUGCACCGUGGAUUAUTT
	AUAAUCCACGGUGCACAGGTT
si-NC	UUCUCCGAACGUGUCACGUTT
	ACGUGACACGUUCGGAGAATT

siRNA, small interfering RNA; NC, negative control.

Table SII. Antibodies used in this study.

Antibody name	Catalog number	Dilutions	Supplier
PTPN18	8311	IP/WB (1:200/1:1,000)	Cell Signaling Technology, Inc.
β-Actin	4970	WB (1:1,000)	Cell Signaling Technology, Inc.
HA	abs830006	IP/WB (1:200/1:1,000)	Absin Bioscience, Inc.
Flag	abs137958	IP/WB (1:200/1:2,000)	Absin Bioscience, Inc.
Cyclin A	ab185619	WB (1:1,000)	Abcam
Cyclin B1	ab32053	WB (1:3,000)	Abcam
Cyclin D1	2978	WB (1:1,000)	Cell Signaling Technology, Inc.
Cyclin D3	2936	WB (1:2,000)	Cell Signaling Technology, Inc.
Cyclin E1	20808	WB (1:1,000)	Cell Signaling Technology, Inc.
CDK2	2546	WB (1:1,000)	Cell Signaling Technology, Inc.
CDK4	12790	WB (1:1,000)	Cell Signaling Technology, Inc.
CDK6	3136	WB (1:1,000)	Cell Signaling Technology, Inc.
p27 Kip1 (CDKN1B)	3686	WB (1:1,000)	Cell Signaling Technology, Inc.
p21 Waf1/Cip1 (CDKN1A)	2947	WB (1:1,000)	Cell Signaling Technology, Inc.
P-AKT1/2/3	ab131443	WB (1:500)	Abcam
AKT1/2/3	ab179463	WB (1:5,000)	Abcam
PI3K p110β	3011	WB (1:1,000)	Cell Signaling Technology, Inc.
P-PI3K p85	4228	WB (1:1,000)	Cell Signaling Technology, Inc.
PI3K p85	4292	WB (1:1,000)	Cell Signaling Technology, Inc.
P-GSK3(α/β)	ab68476	WB (1:1,000)	Abcam
GSK3(α/β)	ab62368	WB (1:1,000)	Abcam

FOXO1	2880	WB (1:1,000)	Cell Signaling Technology, Inc.
MTOR	2972	WB (1:1,000)	Cell Signaling Technology, Inc.
E-cadherin	3195	WB (1:1,000)	Cell Signaling Technology, Inc.
Bax	2772	WB (1:1,000)	Cell Signaling Technology, Inc.
Bcl-2	3498	WB (1:1,000)	Cell Signaling Technology, Inc.
Ubiquitin Rabbit mAb	A19686	WB (1:2,000)	ABclonal Biotech Co., Ltd.
Phospho-Tyrosine Mouse mAb	9411	WB (1:2,000)	Cell Signaling Technology, Inc.

WB, western blotting.

Table SIII. Primer sequences used for reverse transcription-quantitative PCR.

Gene name	Primer sequence (5'-3')
E-cadherin	F: AACGTTGTCCCGGGTGTCA
	R: GGATTGCAAATTCCTGCCATTC
SNAIL	F: GCTGCAGGACTCTAATCCAGAGTT
	R: GACAGAGTCCCAGATGAGCATTG
TWIST	F: GGAGTCCGCAGTCTTACGAG
	R: TCTGGAGGACCTGGTAGAGG
NOTCH3	F: TGGCGACCTCACTTACGACT
	R: CACTGGCAGTTATAGGTGTTGAC
MTOR	F: TCCGAGAGATGAGTCAAGAGG
	R: CACCTTCCACTCCTATGAGGC
BCL-2	F: GGTGGGGTCATGTGTGTGG
	R: CGGTTCAGGTACTCAGTCATCC
BAX	F: CCCGAGAGGTCTTTTTCCGAG
	R: CCAGCCCATGATGGTTCTGAT
CCNA2	F: GGATGGTAGTTTTGAGTCACCAC
	R: CACGAGGATAGCTCTCATACTGT
CCNB1	F: TTGGGGACATTGGTAACAAAGTC
	R: ATAGGCTCAGGCGAAAGTTTTT
CCND1	F: GATGCCAACCTCCTCAACGAC
	R: CTCCTCGCACTTCTGTTCCTC
CCND3	F: TACCCGCCATCCATGATCG
	R: AGGCAGTCCACTTCAGTGC
CCNE1	F: ACTCAACGTGCAAGCCTCG
	R: GCTCAAGAAAGTGCTGATCCC
CCNE2	F: TCAAGACGAAGTAGCCGTTTAC
	R: TGACATCCTGGGTAGTTTTCCTC
CCNG2	F: TCTGTATTAGCCTTGTGCCTTCT

	R: CCTTGAAACGATCCAAACCAAC
CCNH-F	F: TCACCCCAGGATAATAATGCTCA
	R: CAGTATCTGTTCAAGTGCCTTCT
CDK1	F: AAACTACAGGTCAAGTGGTAGCC
	R: TCCTGCATAAGCACATCCTGA
CDK2	F: CCAGGAGTTACTTCTATGCCTGA
	R: TTCATCCAGGGGAGGTACAAC
CDK4	F: ATGGCTACCTCTCGATATGAGC
	R: CATTGGGGACTCTCACACTCT
CDK6	F: CCAGATGGCTCTAACCTCAGT
	R: AACTTCCACGAAAAAGAGGCTT
CDK7	F: TGTATGGTGTAGGTGTGGACA
	R: TGCAAAGGTATTCCAGGGAAAC
PIK3CG	F: GGCGAAACGCCCATCAAAAA
	R: GACTCCCGTGCAGTCATCC
PDPK1	F: GGAACAGCGCAGTACGTTTCT
	R: CTCGTTTCCAGCTCGGAATGG
AKT1	F: GTCATCGAACGCACCTTCCAT
	R: AGCTTCAGGTACTCAAACTCGT
GSK3β	F: GGCAGCATGAAAGTTAGCAGA
	R: GGCGACCAGTTCTCCTGAATC
FOXO3	F: CGGACAAACGGCTCACTCT
	R: GGACCCGCATGAATCGACTAT
CDKN1B	F: AACGTGCGAGTGTCTAACGG
	R: CCCTCTAGGGGTTTGTGATTCT
RBL2	F: CCACCCCTCAGATCCAGCA
	R: CGTGTAGCTTTCGCTCATGC
PLK1	F: AAAGAGATCCCGGAGGTCCTA
	R: GGCTGCGGTGAATGGATATTTC

TP-53	F: CAGCACATGACGGAGGTTGT
	R: TCATCCAAATACTCCACACGC
SFN	F: ACTTTTCCGTCTTCCACTACGA
	R: ACAGTGTCAGGTTGTCTCGC
GADD45A	F: GAGAGCAGAAGACCGAAAGGA
	R: CACAACACCACGTTATCGGG
CDKN1A	F: TGTCCGTCAGAACCCATGC
	R: AAAGTCGAAGTTCCATCGCTC
CTNNB1	F: CATCTACACAGTTTGATGCTGCT
	R: GCAGTTTTGTCAGTTCAGGGA
TCF7	F: TTGATGCTAGGTTCTGGTGTACC
	R: CCTTGGACTCTGCTTGTGTC
LEF1	F: TGCCAAATATGAATAACGACCCA
	R: GAGAAAAGTGCTCGTCACTGT
APC	F: AAAATGTCCCTCCGTTCTTATGG
	R: CTGAAGTTGAGCGTAATACCAGT
MAPK3	F: CTACACGCAGTTGCAGTACAT
	R: CAGCAGGATCTGGATCTCCC
MAPK8	F: TGTGTGGAATCAAGCACCTTC
	R: AGGCGTCATCATAAAACTCGTTC
ELAVL1	F: AACTACGTGACCGCGAAGG
	R: CGCCCAAACCGAGAGAACA
STAT1	F: ATCAGGCTCAGTCGGGGAATA
	R: TGGTCTCGTGTTCTCTGTTCT
SMAD2	F: CGTCCATCTTGCCATTCACG
	R: CTCAAGCTCATCTAATCGTCCTG
RBL1	F: ACCACCAAAGTTACCACGAAG
	R: CCCCAATCATCCGAAAATTACCC
E2F4	F: ATCGGGCTAATCGAGAAAAAGTC

	R: TGCTGGTCTAGTTCTTGCTCC
EP300	F: AGCCAAGCGGCCTAAACTC
	R: TCACCACCATTGGTTAGTCCC
E2F3	F: GTATGATACGTCTCTTGGTCTGC
	R: CAAATCCAATACCCCATCGGG
WEE1	F: AGGGAATTTGATGTGCGACAG
	R: CTTCAAGCTCATAATCACTGGCT
RB1	F: CTCTCGTCAGGCTTGAGTTTG
	R: GACATCTCATCTAGGTCAACTGC
CDC25C	F: ATGACAATGGAAACTTGGTGGAC
	R: GGAGCGATATAGGCCACTTCTG
GAPDH	F: GGAGCGAGATCCCTCCAAAAT
	R: GGCTGTTGTCATACTTCTCATGG
PTPN18	F: AGGAGTCCCGTTCTGTGTACC
	R: TGCCTCACATAATCCACGGTG

F, forward; R, reverse.