

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Primers used in study.**

Name	Forward sequence (5'-3')	Reverse sequence (5'-3')
ACTIN	TGAAGTACCCCATCGAGCACGGCA	GATAGCACAGCCTGGATAGCAACG
SURVIVIN	CTTGGCCCAGTGTTTCTTCT	TCTCCGCAGTTTCTCAAAT
PRC1	GAGAGCTCTGGGACAGGTTG	TCTTCCAACCGATCCACTTC
C-MYC	CACATCAGCACAACACTACG	TTCGCCTCTTGACATTCT
cyclinD1	CTCGGTGTCTACTTCA	TCCTCGCACTTCTGTTC
$\beta$ -catenin	GTGTGGCGACATATGCAGCT	CAAGATCAGCAGTCTCATTC
DUT	TTGATGTAGGAGCTGGTGTCA	GCAAATGAGCTGTGCAATTC
MMP7	GTCTCGGAGGAGATGCTCAC	GGAATGTCCCATAACCCAAAG
LGR5	TGTGCATTTGGAGTGTGTGA	CACGTTTTCATCTTGAGCCTGA
TCF1	CCCACAGGTGATGAGCTACC	GCTCCTCCTTGCTAGGGTTC
LEF1	ATATGATTCCTGGTCTCTCT	TGAGGCTTCACGTGCATTAG
DKK1	CATCAGACTGTGCCTCAGGA	GTCCATGAGAGCCTTTTCTCC
POLD3	CTTGGTGTCTGGCAGTCTCA	TACACATGGATGCTGGCAGT
AXIN2	AGTCAGCAGAGGGACAGGAA	GTGGACACCTGCCAGTTTCT
KIF23	TCCCTGTTGACTTTGGGAAG	TGTACGCCCTCCAAGAGAAT

**Supplementary Table 2. Antibodies used in study.**

Antibody	Source	Country
ABC	Cell Signaling Technology	USA
$\beta$ -catenin	Cell Signaling Technology	USA
p-GSK3 $\beta$	Cell Signaling Technology	USA
GSK3 $\beta$	Cell Signaling Technology	USA
C-myc	Cell Signaling Technology	USA
CyclinD1	Cell Signaling Technology	USA
IRDye 800CW	LI-COR Biosciences	USA
IRDye 680CW	LI-COR Biosciences	USA
KIF23	Santa Cruz Biotechnology	USA
FLAG	Cell Signaling Technology	USA
Amer1	Abcam	USA
APC	Abcam	USA
PRC1	Abcam	USA
Histon H3	Beyotime	China
Pan-cadherin	Abcam	USA
Actin	Cell Signaling Technology	USA

**Supplementary Table 3. Summary of patient characteristics.**

<b>Clinicopathological feature</b>	<b>Number of cases</b>	<b>Expression of KIF23 (mean±SEM)</b>	<b>P value</b>
Gender			
Male	79	1.0792±0.464	0.177
Female	39	0.9432±0.468	
Age(years)			
≥60	75	0.8727±0.454	0.274
<60	43	1.0467±0.485	
Tumor size(cm)			
≥5	69	1.8322±0.546	0.0412*
<5	49	0.5667±0.213	
Tumor venous infiltration			
Yes	43	1.5612±0.512	0.0481*
No	0		
Not available	75	0.6182±0.232	
TNM stage			
I	4	0.9723±0.572	0.00792*** <sup>a</sup>
II	47	2.2123±0.612	
III	67	3.3465±0.523	

\*P<0.05, \*\*P<0.01 versus the control.a,b, versus the stage I.