

Supplementary Material

Table S1. Sequences of oligonucleotides used for real-time reverse transcription PCR.

Name / abbreviation	Gene name ^a	ID ^b	Sequence, forward / reverse
Axin2	axin 2	0168646	GTCCACCACCACTACATCCACCA / TGCCTTTCCATTGCGTTTG
β-Actin	actin, beta	0075624	GAGCACAGAGCCTCGCCTTTG / CTGACCCATGCCACCATCA
β-Catenin	catenin (cadherin-associated protein), beta 1, 88kDa	0168036	CTCTGATAAAGGCTACTGTTGGATTGATTC / TTGCTGCTGTGTCCCACCCA
Vimentin	vimentin	0026025	GGAAGCCGAAAACACCCTGC / TGAGGTCAGGCTTGGAAACATCC
p27	cyclin-dependent kinase inhibitor 1B (p27, Kip1)	0111276	TACGAGTGGCAAGAGGTGGAGAAG / CGACGGATCAGTCTTTGGGTCC
Cyclin D1	cyclin D1	0110092	CTGGATGCTGGAGGTCTGCGAG / GCCGTCAGGGGGATGGTCTC
TCF7L1	transcription factor 7-like 1 (T-cell specific, HMG-box)	0152284	ATCCTTGAAGAAAGTGGCACAACC / TGCTGCTGTGACTGTGTCTGGGA
TCF7L2	transcription factor 7-like 2 (T-cell specific, HMG-box)	0148737	CTGGCACCGTAGGACAAATCCC / CGTCGTGTGTAGCGTATGATGTGGT
Ck7	keratin 7	0135480	GCAGGATGTGGTGGAGGACTTC / TGAGGGTCCTGAGGAAGTTGATCTC
CK8	keratin 8	0170421	CTTGGCAACATGCAGGGGCT / CTGAGGAAGTTGATCTCGTCGGTC
Ck18	keratin 18	0111057	AATGCCCGTCTTGCTGCTGA / GCCTTTTACTTCCTTTCGTGGTTC
Ck19	keratin 19	0171345	CAGGTCAGTGTGGAGGTGGATTC / AGTAACCTCGGACCTGCTCATCTG
E-Cadherin	cadherin 1, type 1, E-Cadherin (epithelial)	0039068	CACTCTTTCTCTCACGCTGTGTCA / GGTGTTACATCATCGTCCGC

^a Source: <http://www.ensembl.org>

^b Ensembl ID "ENSG0000*"

Table S2. Primary antibodies (pre-treatment: water bath at pH 9).

Antigen specificity	Vendor	Catalogue No.	Dilution
β -Catenin	DakoCytomation	M3539	1:200
Cyclin-D1	Thermo Fischer Scientific	RM-9104	1:50
E-Cadherin	Thermo Fischer Scientific	MS-9470	1:100
Ki67	DakoCytomation	M7249	1:500
p27	DakoCytomation	M7203	1:100
p53	DakoCytomation	M7001	1:200
Vimentin	DakoCytomation	M0725	1:200

Table S3. Immunocytochemistry raw data.

Cell line	Ck7 ^a	Ck8/18 ^a	Ck19 ^a	E-Cadherin ^a	β-catenin		
					cytoplasm	membrane	nucleus
CCLP-1	5.0 ^b	11.8	0.0	0.0	194.6	0.0	36.6
CCSW-1	20.4	129.7	11.5	0.0	77.9	48.1	35.1
BDC	285.0	300.0	240.0	80.0	100.0	20.0	0.0
EGI-1	0.0	244.1	151.1	287.7	87.5	60.0	73.8
MzChA-1	139.4	170.9	269.0	42.9	18.2	0.0	0.0
MzChA-2	0.0	173.9	4.8	22.9	78.7	0.0	0.0
SkChA-1	177.1	258.3	262.5	47.3	57.7	0.0	0.0
TFK-1	163.9	177.0	86.5	195.1	22.3	284.8	0.0
GBC	296.9	295.8	286.5	200.0	19.0	181.2	0.0

^a Data based on [Kiesslich T, Alinger B, Wolkersdorfer GW, et al. Active Wnt signalling is associated with low differentiation and high proliferation in human biliary tract cancer in vitro and in vivo and is sensitive to pharmacological inhibition. *Int J Oncol.* 2010; 36:49-58.]

^b Semi-quantitative immunocytochemistry, quick score [Detre S, Saclani Jotti G, Dowsett M. A "quickscore" method for immunohistochemical semiquantitation: validation for oestrogen receptor in breast carcinomas. *J Clin Pathol.* 1995; 48:876-878]