

Supplementary Table. Antibodies used in the study

ANTIBODY	ASSOCIATED GENE SYMBOL	FUNCTIONAL CATEGORY*	HOST AND CLONE	ANTIGEN RETRIEVAL	DILUTION	DETECTION SYSTEM	CELLULAR LOCALIZATION	MANUFACTURER
SMAD4	<i>SMAD4</i>	evading growth suppressor	Mouse/B-8	TRS, citrate, Dako	1:100	Envision, Dako	N, C	Santa Cruz
p53	<i>TP53</i>	enabling replicative immortality	Mouse/DO-7 (FLEX)	TRS, Tris/EDTA, Dako	Prediluted	Envision FLEX, Dako	N	Dako
Cytokeratin-19 (CK19)	<i>KRT19</i>	activation of invasion and metastasis	Mouse/RCK108	TRS, Tris/EDTA, Dako	Prediluted	Envision, Dako	C	Dako
Epidermal growth factor receptor (EGFR)	<i>EGFR</i>	sustaining proliferative signaling	Mouse/EGFR.113	TRS, citrate, Dako	1 : 20	Novolink Detection System, Novocastra	M	Novocastra
Phospho-mTOR (Ser 2448)	<i>MTOR</i>	sustaining proliferative signaling	Rabbit/49F9	TRS, citrate, Dako	1 : 100	Envision, Dako	C, M	CST
HER2/neu	<i>ERBB2</i>	enabling replicative immortality	Rabbit/4B5	Cell Conditioning 1, Ventana	Prediluted	ultraView Universal DAB Detection Kit, Ventana	M	Ventana
MUC1	<i>MUC1</i>	activation of invasion and metastasis	Mouse/ Ma695	TRS, citrate, Dako	1 : 100	Novolink Detection System, Novocastra	C, M	Novocastra
MUC1 core	<i>MUC1</i>	activation of invasion and metastasis	Mouse /Ma552	TRS, citrate, Dako	1 : 100	Novolink Detection System, Novocastra	C, M	Novocastra
EMA	<i>MUC1</i>	activation of invasion and metastasis	Mouse/E29	TRS, Tris/EDTA, Dako	Prediluted	Envision FLEX, Dako	C, M	Dako
MUC5AC	<i>MUC5AC</i>	activation of invasion and metastasis	Mouse /CLH2	TRS, citrate, Dako	1 : 100	Novolink Detection System, Novocastra	C, M	Novocastra
MUC6	<i>MUC6</i>	evading growth suppressor	Mouse/CLH5	TRS, citrate, Dako	1 : 100	Novolink Detection System, Novocastra	C, M	Novocastra
Vimentin	<i>VIM</i>	activation of invasion and metastasis	Mouse/V9 (FLEX)	TRS, Tris/EDTA, Dako	Prediluted	Envision FLEX, Dako	C	Dako

Supplementary Table. Cont.

ANTIBODY	ASSOCIATED GENE SYMBOL	FUNCTIONAL CATEGORY*	HOST AND CLONE	ANTIGEN RETRIEVAL	DILUTION	DETECTION SYSTEM	CELLULAR LOCALIZATION	MANUFACTURER
SMA	<i>ACTA2</i>	activation of invasion and metastasis	Mouse/1A4 (FLEX)	EDTA	Prediluted	Envision FLEX, Dako	C	Dako
Fibronectin	<i>FNI</i>	activation of invasion and metastasis	Mouse/568	Proteinase K, Dako	1 : 200	Novolink Detection System, Novocastra	C	Novocastra
MMP2	<i>MMP2</i>	activation of invasion and metastasis	Mouse/17B11	EDTA	1 : 80	Novolink Detection System, Novocastra	C	Novocastra
MMP9	<i>MMP9</i>	activation of invasion and metastasis	Mouse/15W2	TRS, citrate, Dako	1 : 80	Novolink Detection System, Novocastra	C	Novocastra
E-cadherin	<i>CDH1</i>	activation of invasion and metastasis	Mouse/NCH-38 (FLEX)	TRS, Tris/EDTA, Dako	Prediluted	Envision FLEX, Dako	M	Dako
-catenin	<i>CTNNB1</i>	activation of invasion and metastasis	Rabbit/polyclonal	TRS, citrate, Dako	1 : 250	Envision, Dako	M	LabVision
Claudin 1	<i>CLDN1</i>	activation of invasion and metastasis	Rabbit/polyclonal	Epitope Retrieval Solution, pH8, No-vocastra	1 : 100	Envision, Dako	C, M	Invitrogen
Claudin 4	<i>CLDN4</i>	activation of invasion and metastasis	Mouse/3E2C1	Epitope Retrieval Solution, pH8, No-vocastra	1 : 100	Envision, Dako	C, M	Invitrogen
Claudin 7	<i>CLDN7</i>	activation of invasion and metastasis	Mouse/5D10F3	Epitope Retrieval Solution, pH8, No-vocastra	1 : 100	Envision, Dako	C, M	Invitrogen
Nestin	<i>NES</i>	stem cell-like function	Mouse/10C2	EDTA	1 : 100	Envision, Dako	C, M	AbD Serotec
p21WAF1/CIP1	<i>GDKN1A</i>	evading growth suppressor	Mouse/DCS-60.2	TRS, citrate, Dako	1 : 50	Envision, Dako	N	LabVision
Ki-67	<i>MKI67</i>	enabling replicative immortality	Mouse/MIB1 FLEX	TRS, citrate, Dako	Prediluted	Envision FLEX, Dako	N	Dako

Supplementary Table. Cont.

ANTIBODY	ASSOCIATED GENE SYMBOL	FUNCTIONAL CATEGORY*	HOST AND CLONE	ANTIGEN RETRIEVAL	DILUTION	DETECTION SYSTEM	CELLULAR LOCALIZATION	MANUFACTURER
c-myc	MYC	sustaining proliferative signaling	Mouse/9E10.3	TRS, citrate, Dako	1 : 50	CSA II System, Dako	N, C	LabVision
COX2	PTGS2	inducing angiogenesis	Mouse/4H12	TRS, citrate, Dako	1 : 100	Novolink Detection System, Novocastra	C, M	Novocastra
Phospho-p70 S6 kinase (Thr 389)	RPS6KB1	evading growth suppressor	Rabbit/04-392	TRS, citrate, Dako	1 : 50	Envision, Dako	N, C**	Millipore
Phospho-p44/p42 MAPK (Erk1/2) (Thr202/Tyr204)	MAPK1/ MAPK3	enabling replicative immortality	Rabbit/D13.14.4E XP	TRS, citrate, Dako	1 : 100	Envision, Dako	N, C	CST
Phospho-S6 ribosomal protein (Ser240/244)	RPS6	evading growth suppressor	Rabbit/61H9	TRS, citrate, Dako	1 : 100	Envision, Dako	C	CST
Phospho-p38 MAPK (Thr 180/Jyr182)	MAPK14	enabling replicative immortality	Rabbit/D3F9 XP	TRS, citrate, Dako	1 : 400	Envision, Dako	N	CST
TGF-β1	TGFB1	evading growth suppressor	Mouse/TGFB17	TRS, citrate, Dako	1 : 30	Novolink Detection System, Novocastra	C	Novocastra
TGFβ-R1	TGFBRI	evading growth suppressor	Mouse/8A11	TRS, citrate, Dako	1 : 25	Novolink Detection System, Novocastra	C, M	Novocastra

* as defined by Hanahan and Weinberg (35) and supplemented by Jamieson et al. (36)

** Stain examined in 2 ways: (1) nuclear stain only (2) stain in cytoplasm and/or nuclei.

TRS – Target Retrieval Solution

N – nucleus

C – cytoplasm

M – membrane

Santa Cruz – Santa Cruz Biotechnology, Santa Cruz, CA, USA

Dako – Dako Cytomation, Glostrup, Denmark

Novocastra – Novocastra, Leica Biosystems, Newcastle upon Tyne, United Kingdom

LabVision – LabVision, Thermo Scientific, Kalamazoo, MI, USA

CST – Cell Signaling Technology, Danvers, MA, USA

Ventana – Ventana Medical Systems, Tucson, AZ, USA

Invitrogen – Invitrogen, Life Technologies, Grand Island, NY, USA

Millipore – Millipore, Temecula, CA, USA

AbD Serotec – AbD Serotec, Bio-Rad, Oxford, UK