

Supplementary Table 1: Antibodies (n = 27) and staining protocols (BOND-MAX automated stainer) used for immunohistochemical analysis of the tumor samples.

Antibody	Clone	Dilution	Pretreatment	Manufacturer-product code
CK5	XM26	1:100	H2	NCL-L-CK5
CK7	RN7	1:200	H2	NCL-L-CK7-560
CK17	E3	1:25	H2	NCL-CK17
CK18	DC-10	1:100	H2	NCL-CK18
CK19	b170	1:100	H2	NCL-CK19
CK20	PW31	1:25	H2	NCL-L-CK20-561
Vimentin	V9	1:1500	H1	Dako-M0725
MUC1	Ma695	1:50	H1	NCL-MUC1
MUC2	Ccp58	1:100	H2	NCL-MUC2
MUC5AC	CLH2	1:50	H2	NCL-MUC-5Ac
MUC6	CLH5	1:50	H2	NCL-MUC-6
BerEp4	Ber-EP4	1:100	Enz 1	Dako-M0804
EMA	E29	1:100	H1	Dako-M0613
M-CEA	11-7	1:400	H2	Dako-M7072
P-CEA	Polyclonal	1:800	Enz 1	Dako-A0115
CA125	OV185:1	1:100	H2	NCI-L-Ca125
CA19-9	CA241:5:1:4	1:400	H2	NCL-L-CA19-9
Maspin	EAW24	1:50	H2	NCL-Maspin
WT1	6F-H2	1:100	H2	Dako-M3561
CDX2	AMT28	1:25	H2	NCL-CDX2
p53	Do-7	1:300	H1	NCL-L-P53-D07
p63	DAK-p63	1:50	H2	Dako-M7317
MIB1/KI-67	MIB-1	1:150	H2	Dako-M7240
SMAD4	B-8	1:300	H2	Santa Cruz-sc-7966
Chromogranin A	5H7	1:100	H1	NCL-CHROM-430
CD56	CD564	1:50	H2	NCL-L-CD56-1B6
CD10	56C6	1:75	H2	NCL-L-CD10-270

Pretreatments BOND-MAX automated stainer:

H1 = Bond Epitope Retrieval Solution 1 Citrate 20 Minutes

H2 = Bond Epitope Retrieval Solution 2 EDTA 20 Minutes

Enz 1 = 50 µl enzyme + 7 ml Bond enzyme solution

Antibody manufacturers:

NCL: Novocastra Leica Biosystems Ltd, Newcastle Upon Tyne, United Kingdom

Dako: Dako, Glostrup, Denmark

Santa Cruz: Santa Cruz Biotechnology, Inc., Dallas, U.S.A.