

S1 Table. Details on immunohistochemical analysis

Marker	Company	Clone	Dilution	Antigen retrieval	Incubation condition (min, °C)	Assessment	Cutoff
ER	Neomarkers	SP1	Pre-diluted	EDTA pH8	32, 37	N	1%
PR	Ventana	IE2	Pre-diluted	EDTA pH8	32, 37	N	1%
AR	Lab Vision	AR441	1:100	EDTA pH8	56, 37	N	≤ 1%
Ki67	Ventana	41912	Pre-diluted	EDTA pH8	32, 37	N	20%
EGFR	Ventana	3C6	pre-diluted	EDTA pH8	32, 37	M	5%
HER2	Ventana	4B5	Pre-diluted	EDTA pH8	16, 37	M	3+
CK5/6	Dako	D5/6 B4	1:40	EDTA pH8	32, 37	C, M	5%
CK14	Neomarker	LL002	1:100	EDTA pH8	32, 37	C, M	5%
Vimentin	Dako	V9	1:2,000	EDTA, pH8	24, RT	C, M	10%
p-cadherin	BD transduction lab	56/p-cadherin	1:200	EDTA, pH8	32, 37	C, M	10%
MGB	Ventana	31A5	Pre-diluted	EDTA pH8	32, 37	C	5%
GCDFP15	Novocastra	23A3	1:100	EDTA pH8	32, 37	C	5%
GATA-3	Biocare Medical	L50-823	1:150	EDTA pH8	32, 37	N	5%
PELP-1	Bethyl Laboratories Inc.	Polyclonal	1:500	EDTA pH8	32, 37	N	-

ER, estrogen receptor; N, nuclear; PR, progesterone receptor; AR, androgen receptor; EGFR, epidermal growth factor receptor; M, membrane; HER2, human epidermal growth factor receptor 2; CK, cytokeratin; C, cytoplasmic; RT, room temperature; MGB, mammaglobin; GCDFP15, gross cystic disease fluid protein 15; PELP1, proline, glutamic acid, and leucine-rich protein 1.