

### Supplementary Table S3

Overview of antibodies used in the current study

All sections were stained using BenchMark Ultra (Roche®) and the respective antibody buffers.

For antibody detection either OptiView DAB or Ultra View Universal DAB (Roche®) was used.

Antibody	Vendor	Type	Clone	Dilution	Evaluation
<b>p53</b>	DAKO®	Mouse monoclonal	DO-7	1:100	1 = aberrant negative or >80% cells with aberrant positive nuclear staining* 0 = wild type (between ab. pos. and neg.)
<b>p16</b>	Ventana®	Mouse monoclonal	E6H4	RTU	1 = block positive (moderate-strong nucl. and cytoplasm. staining in 10-20 close cells* 0 = no staining or mosaic pattern
<b>ER</b>	Ventana®	Rabbit monoclonal	SP1	RTU	2 = $\geq 50\%$ cells with nuclear staining* 1 = 10-49% cells with nuclear staining* 0 = <10% cells with nuclear staining
<b>PgR</b>	Ventana®	Rabbit monoclonal	100	RTU	2 = $\geq 50\%$ cells with nuclear staining* 1 = 10-49% cells with nuclear staining* 0 = <10% cells with nuclear staining
<b>Ki67</b>	DAKO®	Mouse monoclonal	MIB-1	1:50	3 = $\geq 75\%$ cells with nuclear staining in 200 nuclei in hot-spot areas 2 = 50-74% cells with nuclear staining in 200 nuclei in hot-spot areas 1 = 25-49 cells with nuclear staining in 200 nuclei in hot-spot areas 0 = <25% cells with nuclear staining in 200 nuclei in hot-spot areas
<b>WT1</b>	DAKO®	Mouse monoclonal	6F-H2	RTU	1 = $\geq 10\%$ cells with nuclear staining* 0 = <10% cells with nuclear staining
<b>Napsin A</b>	Leica®	Mouse monoclonal	IP64	1:20	1 = diffuse, spotted cytoplasmic staining* 0 = other staining pattern than 1
<b>MLH1</b>	Leica®	Mouse monoclonal	ES05	1:100	1 = loss of staining** 0 = retained staining
<b>MSH2</b>	AH- Diagnostics®	Mouse monoclonal	G219- 1129	1:100	1 = loss of staining** 0 = retained staining
<b>MSH6</b>	Biosite®	Rabbit monoclonal	EP49	1:100	1 = loss of staining** 0 = retained staining

Supplementary Table S4 continued					
Antibody	Vendor	Type	Clone	Dilution	Evaluation
<b>PMS2</b>	Biosite®	Rabbit monoclonal	EP51	1:100	1 = loss of staining** 0 = retained staining
<b>PTEN</b>	Ventana®	Rabbit monoclonal	SP218	RTU	1 = diffuse cytoplasmic staining in >90% cells 0 = diffuse cytoplasmic staining in <1% cells*** heterogeneous = between 0 and 1

RTU = ready to use; 1-3=positive scoring, 0=negative scoring

\*indicates mutation or overexpression; \*\*MMR mutation; \*\*\*mutation/loss of function