

MBB4: Breast Tumour Tissue Array (Human)

120 cases and 3 markers, include pathological grade, and TNM

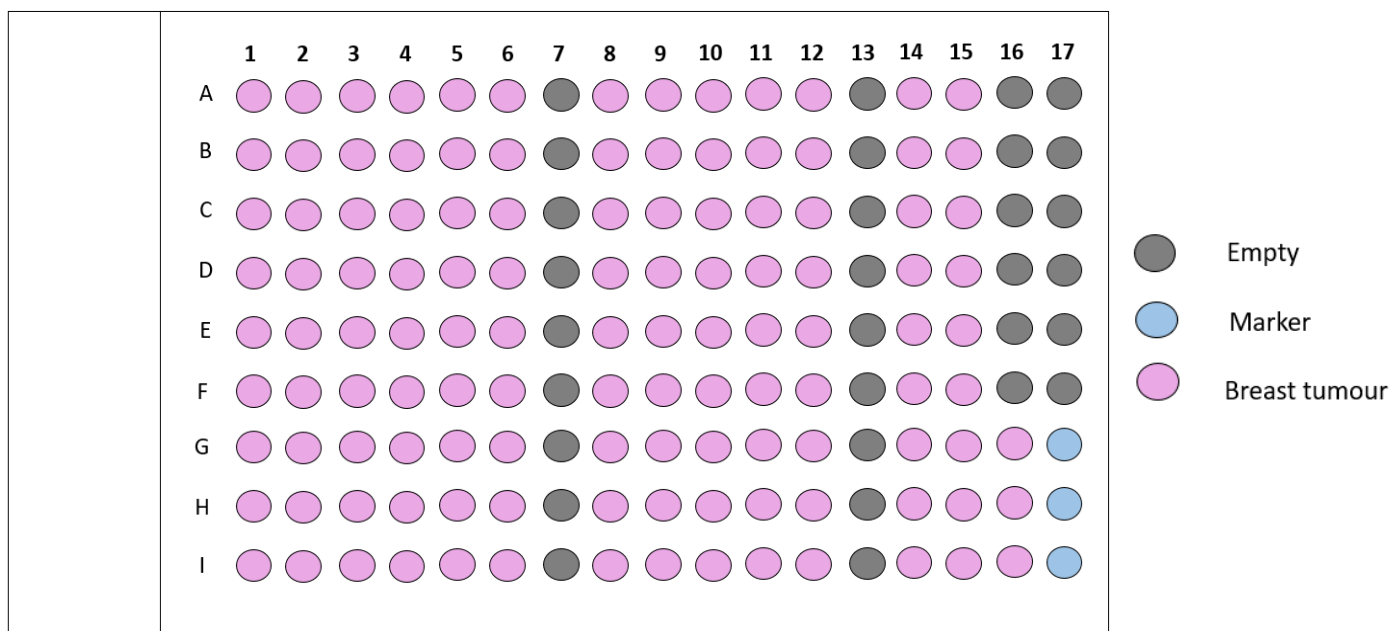


Driven by science. Led by passion. Inspired by patients.

Description:

Product code	MBB4
Cases	120
Row number	17
Column number	9
Core diameter (mm)	0.6
Thickness	4µm
Tissue array type	FFPE
Species	Human
Application	<ul style="list-style-type: none"> Immunohistochemistry In situ hybridization Fluorescent in situ hybridization Terminal deoxynucleotidyl transferase dUTP nick-end labeling (TUNEL) analysis In situ polymerase chain reaction (In situ PCR)
Notes	<ul style="list-style-type: none"> Storage temperature: 4°C Shipping temperature: Ambient

TMA Map:



Patient information:

Position	Age	Gender	Pathology diagnosis	TNM	Grade	Type of tumour
A1	49	F	DCIS	N/A	N/A	Malignant
A2	58	F	Invasive breast carcinoma	T2 N0 MX	3	Malignant
A3	81	F	Invasive ductal carcinoma	N/A	2	Malignant
A4	59	F	Invasive ductal carcinoma	T1c N1 MX	2	Malignant
A5	55	F	Invasive ductal carcinoma	T3 N3 MX	2	Malignant
A6	66	F	Invasive ductal carcinoma	T2 N2 MX	2	Malignant
A7						
A8	54	F	Invasive ductal carcinoma	N/A	3	Malignant
A9	60	F	Metaplastic carcinoma	T1c N0 MX	3	Malignant
A10	55	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
A11	56	F	Invasive ductal carcinoma	T2 N3a MX	3	Malignant
A12	64	F	Invasive breast carcinoma	T4 N3 MX	3	Malignant
A13						
A14	47	F	Invasive ductal carcinoma	N/A	3	Malignant
A15	41	F	Invasive ductal carcinoma	N/A	N/A	Malignant
A16						
A17						
B1	60	F	Invasive ductal carcinoma	T1c	2	Malignant
B2	49	F	Invasive breast carcinoma	T2	3	Malignant
B3	56	F	Invasive ductal carcinoma	T2 N2a MX	3	Malignant
B4	55	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
B5	79	F	Invasive ductal carcinoma	N/A	2	Malignant
B6	52	F	Invasive ductal carcinoma	T1a N0 MX	N/A	Malignant
B7						
B8	62	F	Invasive breast carcinoma	T2 N0 MX	3	Malignant
B9	39	F	Invasive ductal carcinoma	T2	3	Malignant
B10	45	F	Invasive breast carcinoma	T2	3	Malignant
B11	38	F	Invasive ductal carcinoma	T1c N2a MX	2	Malignant
B12	46	F	Invasive ductal carcinoma	T2	2	Malignant
B13						
B14	48	F	Invasive ductal carcinoma	T2N2MX	2	Malignant
B15	56	F	Invasive ductal carcinoma	T2N1MX	2	Malignant
B16						
B17						
C1	62	F	Invasive lobular carcinoma	N/A	N/A	Malignant
C2	36	F	Invasive ductal carcinoma	T2 N1a MX	3	Malignant
C3	37	F	Invasive ductal carcinoma	T2	2	Malignant
C4	41	F	Invasive ductal carcinoma	T1c N1a MX	3	Malignant
C5	55	F	Invasive ductal carcinoma	T2	2	Malignant
C6	59	F	Invasive ductal carcinoma	T1c	2	Malignant
C7						
C8	45	F	Invasive ductal carcinoma	T1c	2	Malignant
C9	53	F	Invasive ductal carcinoma	N/A	3	Malignant
C10	65	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
C11	73	F	Mucinous carcinoma	N/A	N/A	Malignant
C12	46	F	Invasive ductal carcinoma	N/A	3	Malignant
C13						
C14	43	F	Invasive breast carcinoma	N/A	3	Malignant
C15	72	F	Invasive ductal carcinoma	N/A	N/A	Malignant
C16						
C17						

D1	52	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
D2	49	F	Invasive ductal carcinoma	T2 N2a MX	3	Malignant
D3	61	F	Invasive ductal carcinoma	T4a	2	Malignant
D4	36	F	Invasive ductal carcinoma	N/A	3	Malignant
D5	59	F	Invasive ductal carcinoma	T2 N0 MX	3	Malignant
D6	64	F	Invasive ductal carcinoma	N/A	3	Malignant
D7						
D8	74	F	Invasive ductal carcinoma	T1c	2	Malignant
D9	47	F	Invasive ductal carcinoma	T2	2	Malignant
D10	67	F	Invasive ductal carcinoma	T2	3	Malignant
D11	38	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
D12	50	F	Invasive ductal carcinoma	T4c N1a MX	2	Malignant
D13						
D14	44	F	Invasive ductal carcinoma	N/A	3	Malignant
D15	47	F	Metastatic invasive ductal carcinoma	N/A	2	Malignant
D16						
D17						
E1	67	F	Invasive ductal carcinoma	T4b N2a MX	3	Malignant
E2	42	F	Invasive ductal carcinoma	T1c	2	Malignant
E3	58	F	Invasive breast carcinoma	N/A	3	Malignant
E4	57	F	Invasive ductal carcinoma	N/A	2	Malignant
E5	47	F	Invasive breast carcinoma	T4b N1a MX	3	Malignant
E6	52	F	Invasive ductal carcinoma	N/A	2	Malignant
E7						
E8	63	F	Invasive ductal carcinoma	N/A		Malignant
E9	51	F	Skin nodule (recurrent ductal carcinoma)	N/A	2	Malignant
E10	66	F	Invasive ductal carcinoma	T2 N0 MX	1	Malignant
E11	48	F	Invasive breast carcinoma	N/A	3	Malignant
E12	47	F	Invasive ductal carcinoma	T2 N0 MX	3	Malignant
E13						
E14	47	F	Invasive ductal carcinoma	T1c	2	Malignant
E15	46	F	Invasive ductal carcinoma	N/A	2	Malignant
E16						
E17						
F1	63	F	Invasive breast carcinoma	T3 N3a MX	3	Malignant
F2	66	F	Invasive breast carcinoma	T3 N2a MX	3	Malignant
F3	62	F	Invasive ductal carcinoma	T4b N2a MX	2	Malignant
F4	59	F	Invasive ductal carcinoma	N/A	3	Malignant
F5	58	F	Invasive breast carcinoma	T1b	3	Malignant
F6	77	F	Invasive ductal carcinoma	T1c N0 MX	3	Malignant
F7						
F8	49	F	Invasive breast carcinoma	T2 N0 MX	3	Malignant
F9	56	F	Invasive ductal carcinoma	T2 N2 MX	2	Malignant
F10	58	F	Invasive breast carcinoma	T2 N0 MX	3	Malignant
F11	53	F	Invasive ductal carcinoma	N/A	2	Malignant
F12	43	F	Invasive ductal carcinoma	T2 N2a MX	3	Malignant
F13						
F14	55	F	Invasive ductal carcinoma	T3 N2a MX	2	Malignant
F15	67	F	Invasive ductal carcinoma	T2	2	Malignant
F16						
F17						
G1	78	F	Invasive ductal carcinoma	T1c N1a MX	3	Malignant
G2	49	F	Invasive ductal carcinoma	N/A	2	Malignant

G3	55	F	Invasive breast carcinoma	N/A	3	Malignant
G4	32	F	Invasive breast carcinoma	T3 N0 MX	3	Malignant
G5	51	F	Invasive lobular carcinoma	T2 N1a MX	2	Malignant
G6	50	F	Invasive ductal carcinoma	N/A	3	Malignant
G7						
G8	44	F	Invasive ductal carcinoma	T2	2	Malignant
G9	51	F	Invasive ductal carcinoma	N/A	2	Malignant
G10	54	F	Invasive ductal carcinoma	N/A	2	Malignant
G11	32	F	Invasive breast carcinoma	T4b N3a MX	2	Malignant
G12	52	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
G13						
G14	51	F	Invasive ductal carcinoma	T2 N1a MX	2	Malignant
G15	66	M	Invasive breast carcinoma	N/A	3	Malignant
G16	54	F	Invasive breast carcinoma	N/A	N/A	Malignant
G17	Marker					
H1	46	F	Invasive breast carcinoma	T2	3	Malignant
H2	48	F	Invasive breast carcinoma	N/A	3	Malignant
H3	60	F	Invasive ductal carcinoma	T1c	2	Malignant
H4	34	F	Invasive ductal carcinoma	T1c	2	Malignant
H5	45	F	Invasive ductal carcinoma	T2 N2 MX	2	Malignant
H6	60	F	Invasive breast carcinoma	N/A	3	Malignant
H7						
H8	65	F	Invasive ductal carcinoma	T2 N2 MX	2	Malignant
H9	56	F	Invasive ductal carcinoma	T2	2	Malignant
H10	58	F	Invasive ductal carcinoma	T2N0MX	2	Malignant
H11	50	F	Invasive ductal carcinoma	T1b	2	Malignant
H12	42	F	Invasive ductal carcinoma	T2 N2a MX	2	Malignant
H13						
H14	65	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
H15	59	F	Invasive breast carcinoma	T2	3	Malignant
H16	N/A	F	Invasive ductal carcinoma	N/A	N/A	Malignant
H17	Marker					
I1	69	F	Invasive ductal carcinoma	N/A	3	Malignant
I2	57	F	Invasive ductal carcinoma	N/A	3	Malignant
I3	49	F	Invasive breast carcinoma	T1c	3	Malignant
I4	46	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
I5	48	F	Invasive ductal carcinoma	N/A	N/A	Malignant
I6	51	F	Invasive breast carcinoma	N/A	3	Malignant
I7						
I8	60	F	Invasive ductal carcinoma	N/A	2	Malignant
I9	38	F	Invasive breast carcinoma	T2	2	Malignant
I10	50	F	Invasive ductal carcinoma	T2 N2a MX	2	Malignant
I11	75	F	Invasive ductal carcinoma	T2	2	Malignant
I12	43	F	Invasive ductal carcinoma	T3 N2a MX	2	Malignant
I13						
I14	59	F	Invasive breast carcinoma	N/A	N/A	Malignant
I15	60	F	Invasive ductal carcinoma	T2 N2a MX	High	Malignant
I16	N/A	F	Invasive ductal carcinoma	N/A	2	Malignant
I17	Marker					

Stage description

The American Joint Committee on Cancer (AJCC) TNM system is the frequently employed breast cancer staging system, and it is based on seven important elements:

- **The extent (size) of the tumor (T):** How large is the cancer? Has it grown into nearby areas?
- **The spread to nearby lymph nodes (N):** Has the cancer spread to nearby lymph nodes? If so, how many?
- **The spread (metastasis) to distant sites (M):** Has the cancer spread to distant organs such as the lungs or liver?
- **Grade of the cancer (G):** How much do the cancer cells look like normal cells?
- **Estrogen Receptor (ER) status:** Does the cancer have the protein called an estrogen receptor?
- **Progesterone Receptor (PR) status:** Does the cancer have the protein called a progesterone receptor?
- **HER2 status:** Does the cancer make too much of a protein called HER2?

Tumor (T)

T1: Tumour \leq 20 mm in greatest dimension.

T1a: Tumor $>$ 1 mm but \leq 5 mm in greatest dimension (round any measurement $>$ 1.0-1.9 mm to 2 mm).

T1b: Tumor $>$ 5 mm but \leq 10 mm in greatest dimension

T1c: Tumor $>$ 10 mm but \leq 20 mm in greatest dimension

T2: Tumour $>$ 20 mm but \leq 50 mm in greatest dimension.

T3: Tumour $>$ 50 mm in greatest dimension.

T4: Tumor of any size growing into the chest wall or skin. This includes inflammatory breast cancer.

T4a: Extension to chest wall, not including only pectoralis muscle adherence/invasion

T4b: Ulceration and/or ipsilateral satellite nodules and/or edema (including peau d'orange) of the skin, which do not meet the criteria for inflammatory carcinoma.

T4c: Both T4a and T4b.

T4d: Inflammatory carcinoma.

Nodes (N)

NX: Nearby lymph nodes cannot be assessed.

N0: No regional lymph node metastasis identified histologically.

N1: Micrometastases; or metastases in 1-3 axillary lymph nodes and/or in internal mammary nodes; and/or in clinically negative internal mammary nodes with micrometastases or macrometastases by sentinel lymph node biopsy.

N1a: Metastases in 1-3 axillary lymph nodes (at least 1 metastasis $>$ 2.0 mm).

N1b: Metastases in ipsilateral internal mammary lymph nodes, excluding ITCs, detected by sentinel lymph node biopsy

N1c: Combination of N1a and N1b

N2: Metastases in 4-9 axillary lymph nodes; or positive ipsilateral internal mammary lymph nodes by imaging in the absence of axillary lymph node metastases.

N2a: Metastases in 4-9 axillary lymph nodes (at least 1 tumor deposit > 2.0 mm).

N2b: Metastases in one or more internal mammary lymph nodes, causing them to become enlarged.

N3: Any of the following:

N3a: Metastases in ≥ 10 axillary lymph nodes (at least 1 tumor deposit > 2.0 mm); or metastases to the infraclavicular (level III axillary lymph) nodes.

N3b: Metastases in at least one axillary lymph nodes (at least 1 tumor deposit > 2.0 mm) and has enlarged the internal mammary lymph nodes; or metastases in 4 or more axillary lymph nodes (at least 1 tumor deposit > 2.0 mm) and in the internal mammary lymph nodes on sentinel lymph node biopsy.

N3c: Cancer has spread to the lymph nodes above the collarbone (supraclavicular nodes) on the same side of the cancer with at least one area of cancer spread greater than 2 mm.

Metastasis (M)

M0: No clinical or radiographic evidence of distant metastasis.

M1: Any histologically proven metastases in distant organs; or if in non-regional nodes, metastases > 0.2 mm.

Mx: Distant metastasis cannot be assessed.