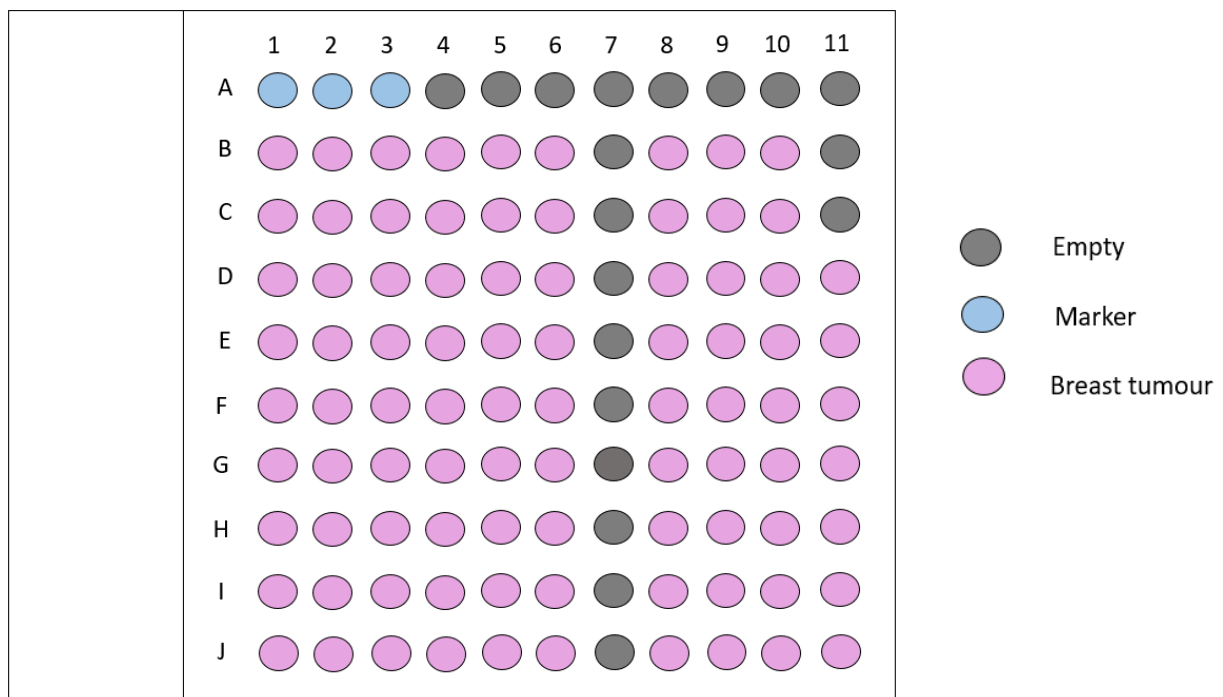


MBB2 : Breast Tumour Tissue Array (Human)

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

**Description**

Product code	MBB2
Cases	88
Row number	11
Column number	10
Core diameter (mm)	0.6
Thickness	4µm
Tissue array type	FFPE
Species	Human
Application	- 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	- Storage temperature : 4°C - Shipping temperature : Ambient

TMA Map :

Position	Age	Gender	Pathology diagnosis	TNM	Grade	Type of tumour
A1	Marker					
A2	Marker					
A3	Marker					
A4						
A5						
A6						
A7						
A8						
A9						
A10						
A11						
B1	87	F	Invasive ductal carcinoma	T2 NX MX	3	Malignant
B2	65	F	Invasive ductal carcinoma	T1c N0 MX	3	Malignant
B3	48	F	Invasive ductal carcinoma	T2 N1a MX	3	Malignant
B4	60	F	Invasive ductal carcinoma	T2 N3 MX	2	Malignant
B5	54	F	Invasive ductal carcinoma	T2 N0 MX	3	Malignant
B6	48	F	Invasive ductal carcinoma	T4c N3a MX	3	Malignant
B7						
B8	44	F	Invasive ductal carcinoma	N/A	2	Malignant
B9	N/A	F	Invasive ductal carcinoma	N/A	3	Malignant
B10	48	F	Invasive ductal carcinoma	N/A	1	Malignant
B11						
C1	49	F	Invasive ductal carcinoma	N/A	3	Malignant
C2	70	F	Invasive pleomorphic lobular carcinoma	T1c NX MX	N/A	Malignant
C3	61	F	Encysted papillary carcinoma	T2 N0 MX	1	Malignant
C4	54	F	Invasive ductal carcinoma	T1c NX MX	2	Malignant
C5	32	F	Invasive ductal carcinoma	T1c NX MX	3	Malignant
C6	51	F	Invasive ductal carcinoma	T2 NX MX	2	Malignant
C7						
C8	43	F	Invasive ductal carcinoma	T1c N0 MX	3	Malignant
C9	58	F	Invasive ductal carcinoma	T1c N3a MX	3	Malignant
C10	49	F	Invasive ductal carcinoma	N/A	2	Malignant
C11						
D1	47	F	Invasive ductal carcinoma	T2 N3 MX	2	Malignant
D2	75	F	Invasive ductal carcinoma	T1c NX MX	1	Malignant
D3	66	F	Invasive ductal carcinoma	T2 NX MX	1	Malignant
D4	34	F	Invasive ductal carcinoma	T3 N1 MX	2	Malignant
D5	43	F	Invasive ductal carcinoma	T1c N2a MX	3	Malignant
D6	42	F	Invasive ductal carcinoma	T3 N1 MX	2	Malignant
D7						
D8	71	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
D9	63	F	Invasive ductal carcinoma	N/A	2	Malignant
D10	27	F	Invasive ductal carcinoma	N/A	3	Malignant
D11	52	F	Invasive lobular and ductal carcinoma	T2 N0 MX	2	Malignant

E1	56	F	Medullary carcinoma	T2 N1a MX	N/A	Malignant
E2	47	F	Invasive ductal carcinoma	T4b N3a MX	3	Malignant
E3	52	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
E4	50	F	Invasive ductal carcinoma	T1c NX MX	3	Malignant
E5	27	F	Invasive ductal carcinoma	T2 N1a MX	3	Malignant
E6	51	F	Invasive ductal carcinoma	T2 N1a MX	3	Malignant
E7						
E8	51	F	Invasive ductal carcinoma	N/A	3	Malignant
E9	44	F	Invasive ductal carcinoma	T1c NX MX	2	Malignant
E10	38	F	Invasive ductal carcinoma	T1c N2a MX	3	Malignant
E11	45	F	Invasive ductal carcinoma	T2 N2a MX	2	Malignant
F1	49	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
F2	56	F	Invasive ductal carcinoma	T3 N2a MX	3	Malignant
F3	60	F	Invasive ductal carcinoma	T2 N0 MX	3	Malignant
F4	47	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
F5	53	F	Invasive ductal carcinoma	T3 N2a MX	2	Malignant
F6	38	F	Invasive ductal carcinoma	T2 NX MX	2	Malignant
F7						
F8	77	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
F9	46	F	Invasive ductal carcinoma	T2 NX MX	2	Malignant
F10	52	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
F11	72	F	Invasive ductal carcinoma	T1c N1a MX	3	Malignant
G1	61	F	Invasive ductal carcinoma	T2 N3 MX	2	Malignant
G2	53	F	Invasive ductal carcinoma	N/A	2	Malignant
G3	68	F	Encysted papillary carcinoma	N/A	N/A	Malignant
G4	39	F	Invasive ductal carcinoma	T1c N0 MX	3	Malignant
G5	53	F	Invasive ductal carcinoma	T1c N1a MX	3	Malignant
G6	49	F	Invasive ductal carcinoma	T3 N1 MX	2	Malignant
G7						
G8	38	F	Invasive ductal carcinoma	T3 N3a MX	3	Malignant
G9	58	F	Invasive ductal carcinoma	T2 N2a MX	3	Malignant
G10	78	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
G11	47	F	Invasive ductal carcinoma	T1c N2a MX	2	Malignant
H1	58	F	Invasive ductal carcinoma	T2 NX MX	3	Malignant
H2	59	F	Invasive ductal carcinoma	T2 N1a MX	3	Malignant
H3	46	F	Invasive ductal carcinoma	T2 N3a MX	2	Malignant
H4	46	F	Invasive ductal carcinoma	T4b N0 MX	2	Malignant
H5	39	F	Invasive ductal carcinoma	T1c N1a MX	2	Malignant
H6	55	F	Invasive ductal carcinoma	T2 NX MX	2	Malignant
H7						
H8	51	F	Invasive ductal carcinoma	T2 N2a MX	3	Malignant
H9	47	F	Invasive ductal carcinoma	T1c N0 MX	2	Malignant
H10	55	F	Invasive ductal carcinoma	T2 N1a MX	3	Malignant
H11	54	F	Invasive ductal carcinoma	T1c N0 MX	3	Malignant
I1	80	F	Invasive ductal carcinoma	T1c NX MX	2	Malignant
I2	61	F	Invasive ductal carcinoma	T1c NX MX	3	Malignant
I3	44	F	Invasive ductal carcinoma	T1c NX MX	3	Malignant
I4	47	F	Invasive ductal carcinoma	T3 NX MX	3	Malignant
I5	43	F	Invasive ductal carcinoma	T1c N0 MX	3	Malignant

I6	58	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
I7						
I8	57	F	Invasive ductal carcinoma	T2 N0 MX	2	Malignant
I9	42	F	Invasive ductal carcinoma	N/A	3	Malignant
I10	42	F	Invasive ductal carcinoma	N/A	3	Malignant
I11	52	F	Invasive ductal carcinoma	T2 N3 MX	2	Malignant
J1	N/A	F	Invasive ductal carcinoma	N/A	2	Malignant
J2	55	F	Invasive ductal carcinoma	T2 NX MX	2	Malignant
J3	68	F	Invasive ductal carcinoma	T1b NX MX	2	Malignant
J4	63	F	Invasive ductal carcinoma	T2 N0 MX	3	Malignant
J5	48	F	Invasive ductal carcinoma	T2 N0 MX	3	Malignant
J6	36	F	Invasive ductal carcinoma	T3 N0 MX	3	Malignant
J7						
J8	66	F	Invasive ductal carcinoma	T2 N2a MX	3	Malignant
J9	60	F	Invasive ductal carcinoma	T4b N1a MX	2	Malignant
J10	50	F	Invasive ductal carcinoma	T0 N1 MX	2	Malignant
J11	42	F	Invasive ductal carcinoma	N/A	3	Malignant

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 ≤ 20 mm in greatest dimension.

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

T1b: Tumor > 5 mm but ≤ 10 mm in greatest dimension

T1c: Tumor > 10 mm but ≤ 20 mm in greatest dimension

T2: Tumour > 20 mm but ≤ 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.