MBB6: Special Breast Tumour Tissue Array (Human)
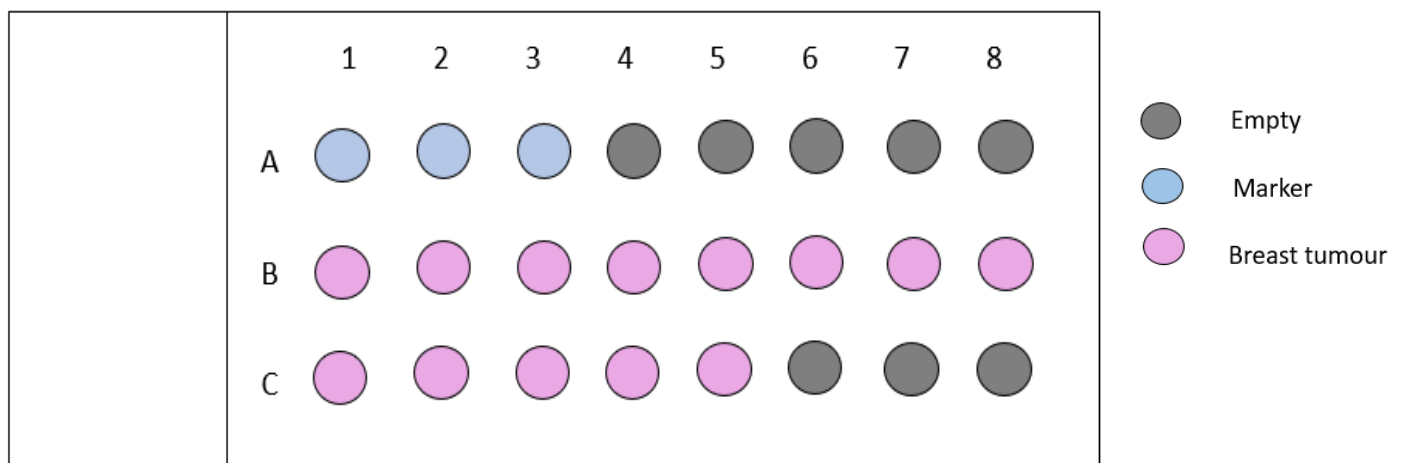
13 cases and 3 markers, include pathological grade, and TNM

Description:

Product code	MBB6
Cases	13
Row number	3
Column number	8
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 labelling (TUNEL) analysis • In situ polymerase chain reaction (In situ PCR)
Notes	• Storage Temperature: 4°C • Shipping temperature: Ambient

TMA map:

Patient Information:

Position	Age	Gender	Pathology diagnosis	TNM	Grade	Type of tumour
A1	Marker					
A2	Marker					
A3	Marker					
A4						
A5						
A6						
A7						
A8						
B1	51	F	Multifocal invasive lobular carcinoma	T2 N2a MX	2	Malignant
B2	51	F	Invasive lobular carcinoma with signet ring differentiation	T2 N1a MX	2	
B3	70	F	Invasive pleomorphic lobular carcinoma	T1c	N/A	Malignant
B4	52	F	Invasive lobular and ductal carcinoma	T2 N0 MX	2	Malignant
B5	68	F	Low grade encysted papillary carcinoma with focal microinvasion	N/A	N/A	
B6	61	F	Encysted papillary carcinoma with focal stromal invasion	T2 N0 MX	1	Malignant
B7	77	F	Invasive ductal carcinoma with prominent papillary component	T2 N0 MX	2	Malignant
B8	65	F	Invasive ductal carcinoma, solid papillary variant	T1c N0 MX	2	Malignant
C1	44	F	Invasive ductal carcinoma	T1c N1a MX	2	Malignant
C2	44	F	Invasive ductal carcinoma	T1c N1a MX	2	Malignant
C3	73	F	Mucinous carcinoma	N/A	N/A	Malignant
C4	48	F	Mucinous carcinoma	T2 N1a MX	N/A	Malignant
C5	39	F	Mucinous carcinoma	N/A	N/A	Malignant
C6						
C7						
C8						

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.