
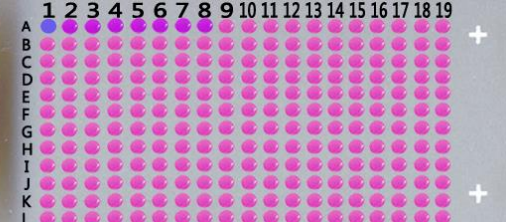




Cat No: **BRC2281 - Breast cancer tissue array**

Lot#	Cores	Size	Cut	Format	QA/QC		
BRC228101	228	1.1mm	4um	12X19	H&E, IHC anti-Cytokeratin		

**Recommended applications:** For Research use only. RNA or protein breast cancer/non-tumor tissue profiling using IHC or ISH; Antibody characterization.

**Description:** Breast cancer tissue array containing 8 cases of normal/benign conditions and 220 cases of cancers with grading, TNM staging, and ER, PR, HER2, P53, EGFR, Ki67 IHC data.

All the tissues were from surgical resection. They were fixed in 10% neutral buffered formalin for 24 hours and processed using identical SOPs. Sections were picked onto Superfrost Plus or APES coated Superfrost slides. They can be stored for use at 4C for up to six months from the date of shipment. **There may be 5 to 10% of tissue core loss.**

Array Position	Sex	Age	Anatomic Site	Pathology	Grade	Stage
A01	F	22	Breast	Normal	null	null
A02	F	49	Breast	Fibrocystic changes	null	null
A03	F	45	Breast	Fibrocystic changes	null	null
A04	F	38	Breast	Fibrocystic changes	null	null
A05	F	43	Breast	Fibroadenoma	null	null
A06	F	29	Breast	Fibroadenoma	null	null
A07	F	23	Breast	Fibroadenoma	null	null
A08	F	40	Breast	Fibrocystic changes	null	null
A09	F	54	Breast	Invasive ductal carcinoma	II~III	T2N0M0
A10	F	53	Breast	Invasive lobular carcinoma	I	T2N0M0
A11	M	44	Breast	Invasive ductal carcinoma	II	T2N1M0
A12	F	58	Breast	Invasive ductal carcinoma	II~III	T2N1M0
A13	F	75	Breast	Invasive ductal carcinoma	III	T3N0M0
A14	F	43	Breast	Invasive ductal carcinoma	II~III	T2N0M0
A15	F	30	Breast	Invasive ductal carcinoma, tubular type	I~II	T3N0M0
A16	F	43	Breast	Invasive ductal carcinoma	III	T3N0M0
A17	F	37	Breast	Invasive ductal carcinoma	II~III	T2N1M0
A18	F	61	Breast	Invasive ductal carcinoma	II	T1N1M0
A19	F	50	Breast	Invasive ductal carcinoma	III	T2N1M0
B01	F	48	Breast	Invasive ductal carcinoma	II	T2N0M0
B02	F	46	Breast	Invasive ductal carcinoma	II	T3N1M0
B03	F	60	Breast	Invasive ductal carcinoma	III	T4N0M0
B04	F	40	Breast	Invasive ductal carcinoma	II~III	T3N1M0
B05	F	60	Breast	Invasive ductal carcinoma	II	T2N1M0
B06	F	35	Breast	Invasive ductal carcinoma	II	T2N0M0
B07	F	56	Breast	Sarcoma	null	null
B08	F	37	Breast	Invasive ductal carcinoma	II	T3N0M0
B09	F	52	Breast	Invasive ductal carcinoma	II	T2N0M0
B10	F	52	Breast	Ductal carcinoma in situ	I	TisN0M0
B11	F	58	Breast	Invasive ductal carcinoma	II~III	T2N1M0
B12	F	40	Breast	Invasive ductal carcinoma	II	T2N1M0
B13	F	30	Breast	Invasive ductal carcinoma	II	T2N1M0
B14	F	33	Breast	Ductal carcinoma in situ	I	TisN0M0
B15	F	49	Breast	Invasive ductal carcinoma	III	T3N0M0
B16	F	52	Breast	Invasive ductal carcinoma	III	T2N1M0
B17	F	58	Breast	Invasive ductal carcinoma	II	T2N0M0
B18	F	53	Breast	Invasive ductal carcinoma	II	T2N0M0
B19	F	47	Breast	Invasive ductal carcinoma	II~III	T2N2M0
C01	F	59	Breast	Invasive ductal carcinoma	II	T2N0M0
C02	F	72	Breast	Invasive ductal carcinoma	I~II	T2N1M0

**Advancing Biomedical Science Through Tissue Arrays**

C03	F	58	Breast	Mucinous adenocarcinoma	null	T3N1M0
C04	F	40	Breast	Invasive ductal carcinoma	II	T4N1M0
C05	F	36	Breast	Invasive lobular carcinoma	I~II	T2N2M0
C06	F	48	Breast	Invasive ductal carcinoma	II~III	T2N0M0
C07	F	44	Breast	Invasive ductal carcinoma	II~III	T2N0M0
C08	F	56	Breast	Invasive ductal carcinoma	I~II	T2N0M0
C09	F	50	Breast	Invasive ductal carcinoma	II	T2N1M0
C10	F	42	Breast	Invasive ductal carcinoma	II	T4N1M0
C11	F	34	Breast	Ductal carcinoma in situ	I	TisN0M0
C12	F	50	Breast	Invasive ductal carcinoma	II~III	T2N0M0
C13	F	83	Breast	Invasive ductal carcinoma	II	T4N0M0
C14	F	64	Breast	Invasive ductal carcinoma	III	T2N0M0
C15	F	27	Breast	Invasive ductal carcinoma	II~III	T1N0M0
C16	F	44	Breast	Invasive ductal carcinoma	II~III	T2N1M0
C17	F	30	Breast	Invasive ductal carcinoma	III	T2N0M0
C18	F	58	Breast	Invasive ductal carcinoma	II	T3N0M0
C19	F	58	Breast	Invasive ductal carcinoma	II~III	T1N0M0
D01	F	60	Breast	Ductal carcinoma in situ	I	TisN0M0
D02	F	40	Breast	Invasive ductal carcinoma	II	T2N0M0
D03	F	53	Breast	Invasive ductal carcinoma	II	T2N0M0
D04	F	53	Breast	Invasive ductal carcinoma	II~III	T1N0M0
D05	F	58	Breast	Invasive ductal carcinoma	II	T2N1M0
D06	F	37	Breast	Ductal carcinoma in situ	I	TisN0M0
D07	F	33	Breast	Ductal carcinoma in situ	I	TisN0M0
D08	F	39	Breast	Invasive ductal carcinoma	II~III	T4N0M0
D09	F	62	Breast	Invasive ductal carcinoma	II~III	T2N0M0
D10	F	50	Breast	Invasive ductal carcinoma	II~III	T2N0M0
D11	F	61	Breast	Invasive ductal carcinoma	II~III	T1N0M0
D12	F	40	Breast	Invasive ductal carcinoma	II~III	T1N0M0
D13	F	38	Breast	Invasive ductal carcinoma	I~II	T1N0M0
D14	F	54	Breast	Paget's disease	null	TisN0M0
D15	F	58	Breast	Invasive ductal carcinoma	II	T4N1M0
D16	F	37	Breast	Invasive ductal carcinoma	II~III	T4N1M0
D17	F	61	Breast	Invasive ductal carcinoma	II~III	T4N1M0
D18	F	41	Breast	Ductal carcinoma in situ	I	TisN0M0
D19	F	68	Breast	Invasive ductal carcinoma	II	T2N0M0
E01	F	54	Breast	Invasive ductal carcinoma	II	T1N0M0
E02	F	55	Breast	Invasive lobular carcinoma	II~III	T1N0M0
E03	F	30	Breast	Invasive ductal carcinoma	II~III	T2N1M0
E04	F	44	Breast	Invasive ductal carcinoma	II~III	T3N0M0
E05	F	45	Breast	Invasive ductal carcinoma	II~III	T2N0M0
E06	F	48	Breast	Invasive ductal carcinoma	III	T2N0M0
E07	F	43	Breast	Invasive ductal carcinoma	II	T2N2M0
E08	F	47	Breast	Invasive ductal carcinoma	II	T2N0M0
E09	F	45	Breast	Invasive ductal carcinoma	II~III	T2N1M0
E10	F	55	Breast	Invasive lobular carcinoma	III	T3N1M0
E11	F	68	Breast	Invasive papillary carcinoma	I~II	T2N0M0
E12	F	45	Breast	Invasive ductal carcinoma	II~III	T1N0M0
E13	F	49	Breast	Invasive ductal carcinoma	II~III	T2N0M0
E14	F	51	Breast	Invasive ductal carcinoma	II~III	T2N0M0
E15	F	42	Breast	Invasive ductal carcinoma	II	T3N0M0
E16	F	36	Breast	Invasive ductal carcinoma	II	T4N0M0
E17	F	48	Breast	Invasive ductal carcinoma	II	T2N0M0
E18	F	45	Breast	Invasive ductal carcinoma	II~III	T2N0M0
E19	F	30	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F01	F	68	Breast	Invasive ductal carcinoma	III	T3N1M0
F02	F	36	Breast	Invasive ductal carcinoma	II	T3N1M0
F03	F	60	Breast	Invasive ductal carcinoma	II	T2N0M0
F04	F	44	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F05	F	38	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F06	F	33	Breast	Invasive lobular carcinoma	I	T4N0M0

**Advancing Biomedical Science Through Tissue Arrays**

F07	F	53	Breast	Invasive ductal carcinoma	II~III	T4N0M0
F08	F	43	Breast	Invasive ductal carcinoma	I	T2N0M0
F09	F	42	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F10	F	50	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F11	F	67	Breast	Invasive ductal carcinoma	II	T2N0M0
F12	F	49	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F13	F	41	Breast	Ductal carcinoma in situ	I	TisN0M0
F14	F	41	Breast	Mucinous adenocarcinoma	null	T2N0M0
F15	F	41	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F16	F	46	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F17	F	68	Breast	Invasive ductal carcinoma	II	T3N0M0
F18	F	49	Breast	Invasive ductal carcinoma	II~III	T2N0M0
F19	F	62	Breast	Invasive ductal carcinoma	II~III	T2N0M0
G01	F	44	Breast	Invasive ductal carcinoma	III	T3N1M0
G02	F	60	Breast	Invasive ductal carcinoma	II	T2N1M0
G03	F	43	Breast	Invasive lobular carcinoma	I~II	T3N1M0
G04	F	37	Breast	Invasive ductal carcinoma	II	T2N0M0
G05	F	41	Breast	Invasive ductal carcinoma	II~III	T2N0M0
G06	F	56	Breast	Mucinous adenocarcinoma	null	T1N0M0
G07	F	41	Breast	Invasive ductal carcinoma	II	T3N1M0
G08	F	56	Breast	Invasive lobular carcinoma	II~III	T2N0M0
G09	F	79	Breast	Invasive ductal carcinoma	II	T2N0M0
G10	F	57	Breast	Invasive ductal carcinoma	II	T2N0M0
G11	F	54	Breast	Invasive lobular carcinoma	I	T3N1M0
G12	F	33	Breast	Invasive ductal carcinoma	II	T4N2M0
G13	F	42	Breast	Invasive ductal carcinoma	II~III	T2N0M0
G14	F	66	Breast	Invasive ductal carcinoma	II	T1N0M0
G15	F	60	Breast	Invasive ductal carcinoma	II~III	T3N1M0
G16	F	45	Breast	Invasive ductal carcinoma	II	T3N1M0
G17	F	74	Breast	Invasive ductal carcinoma	II~III	T1N0M0
G18	F	38	Breast	Invasive ductal carcinoma	II	T1N0M0
G19	F	58	Breast	Invasive ductal carcinoma	II	T1N0M0
H01	F	57	Breast	Invasive ductal carcinoma	II	T2N0M0
H02	F	55	Breast	Invasive ductal carcinoma	III	T3N0M0
H03	F	47	Breast	Invasive ductal carcinoma	II	T2N0M0
H04	F	46	Breast	Invasive ductal carcinoma	II	T2N0M0
H05	F	54	Breast	Invasive ductal carcinoma	II~III	T3N1M0
H06	F	52	Breast	Invasive ductal carcinoma	II	T2N0M0
H07	F	49	Breast	Invasive ductal carcinoma	II	T2N0M0
H08	F	52	Breast	Invasive lobular carcinoma	II~III	T2N0M0
H09	F	45	Breast	Invasive ductal carcinoma	II~III	T2N0M0
H10	F	42	Breast	Invasive ductal carcinoma	II	T2N0M0
H11	F	48	Breast	Invasive ductal carcinoma	II~III	T2N0M0
H12	F	44	Breast	Invasive ductal carcinoma	II~III	T2N0M0
H13	F	67	Breast	Invasive ductal carcinoma	II~III	T2N0M0
H14	F	63	Breast	Invasive ductal carcinoma	II	T2N0M0
H15	F	44	Breast	Invasive ductal carcinoma	III	T2N0M0
H16	F	46	Breast	Invasive ductal carcinoma	III	T2N0M0
H17	F	34	Breast	Invasive lobular carcinoma	II	T2N1M0
H18	F	53	Breast	Invasive ductal carcinoma	II	T2N0M0
H19	F	25	Breast	Lobular carcinoma in situ	II	TisN0M0
I01	F	45	Breast	Invasive lobular carcinoma	II~III	T2N0M0
I02	F	44	Breast	Invasive ductal carcinoma	II~III	T2N0M0
I03	F	38	Breast	Invasive ductal carcinoma	I~II	T2N0M0
I04	F	70	Breast	Invasive ductal carcinoma	II	T2N0M0
I05	F	56	Breast	Invasive ductal carcinoma	I	T3N1M0
I06	F	77	Breast	Invasive ductal carcinoma, lipid-rich	II	T1N0M0
I07	F	52	Breast	Ductal carcinoma in situ	I	TisN0M0
I08	F	68	Breast	Invasive ductal carcinoma	II~III	T1N0M0
I09	F	68	Breast	Invasive ductal carcinoma	II~III	T3N1M0
I10	F	46	Breast	Invasive ductal carcinoma	II~III	T2N0M0

**Advancing Biomedical Science Through Tissue Arrays**

I11	F	52	Breast	Invasive ductal carcinoma	II~III	T2N0M0
I12	F	59	Breast	Invasive ductal carcinoma	II~III	T3N1M0
I13	F	39	Breast	Invasive ductal carcinoma	II~III	T2N1M0
I14	F	40	Breast	Invasive ductal carcinoma	II~III	T2N1M0
I15	F	40	Breast	Invasive ductal carcinoma	II	T2N0M0
I16	F	63	Breast	Invasive ductal carcinoma	II~III	T2N0M0
I17	F	50	Breast	Invasive ductal carcinoma	II~III	T1N0M0
I18	F	46	Breast	Invasive ductal carcinoma	I~II	T2N1M0
I19	F	39	Breast	Invasive ductal carcinoma	I~II	T2N1M0
J01	F	48	Breast	Invasive ductal carcinoma	II~III	T1N0M0
J02	F	41	Breast	Invasive ductal carcinoma	II	T2N0M0
J03	F	61	Breast	Lobular carcinoma in situ	null	TisN0M0
J04	F	41	Breast	Ductal carcinoma in situ	I~II	TisN0M0
J05	F	86	Breast	Invasive ductal carcinoma with apocrine features	III	T2N0M0
J06	F	34	Breast	Invasive ductal carcinoma	II~III	T3N3M0
J07	F	47	Breast	Undifferentiated carcinoma	III	T2N0M0
J08	F	35	Breast	Invasive lobular carcinoma	I	T2N1M0
J09	F	44	Breast	Invasive ductal carcinoma, tubular type	II	T2N1M0
J10	F	54	Breast	Invasive ductal carcinoma	II	T1N0M0
J11	F	58	Breast	Invasive ductal carcinoma	II~III	T2N1M0
J12	F	74	Breast	Invasive ductal carcinoma	II	T2N0M0
J13	F	53	Breast	Invasive ductal carcinoma	II~III	T2N0M0
J14	F	53	Breast	Invasive ductal carcinoma	I~II	T2N0M0
J15	F	48	Breast	Invasive ductal carcinoma	I~II	T2N0M0
J16	F	43	Breast	Invasive ductal carcinoma	II	T2N0M0
J17	F	34	Breast	Ductal carcinoma in situ	I	TisN0M0
J18	F	52	Breast	Invasive ductal carcinoma	II	T2N0M0
J19	F	40	Breast	Invasive ductal carcinoma	II	T2N1M0
K01	F	76	Breast	Invasive ductal carcinoma	II~III	T2N0M0
K02	F	39	Breast	Invasive ductal carcinoma	II~III	T2N0M0
K03	F	52	Breast	Invasive ductal carcinoma	II	T2N0M0
K04	F	72	Breast	Invasive ductal carcinoma	II~III	T4N0M0
K05	F	58	Breast	Invasive ductal carcinoma	II~III	T2N0M0
K06	F	35	Breast	Invasive ductal carcinoma	II	T2N0M0
K07	F	35	Breast	Invasive ductal carcinoma	I~II	T3N1M0
K08	F	60	Breast	Invasive ductal carcinoma	II	T2N0M0
K09	F	37	Breast	Invasive ductal carcinoma	II~III	T2N0M0
K10	F	53	Breast	Invasive ductal carcinoma	II~III	T3N0M0
K11	F	52	Breast	Invasive lobular carcinoma	II~III	T1N0M0
K12	F	62	Breast	Invasive ductal carcinoma	II~III	T1N0M0
K13	F	39	Breast	Ductal carcinoma in situ	I	TisN0M0
K14	F	50	Breast	Invasive ductal carcinoma	II~III	T2N0M0
K15	F	39	Breast	Ductal carcinoma in situ	I~II	TisN0M0
K16	F	64	Breast	Invasive ductal carcinoma	II	T3N0M0
K17	F	62	Breast	Invasive ductal carcinoma	II~III	T2N0M0
K18	F	78	Breast	Mucinous adenocarcinoma	null	T2N0M0
K19	F	37	Breast	Invasive ductal carcinoma	II~III	T2N0M0
L01	F	42	Breast	Invasive ductal carcinoma	III	T2N0M0
L02	F	71	Breast	Invasive ductal carcinoma	II	T2N0M0
L03	F	33	Breast	Invasive ductal carcinoma	II~III	T2N0M0
L04	F	37	Breast	Invasive ductal carcinoma	III	T2N0M0
L05	F	39	Breast	Invasive ductal carcinoma	I	T4N1M0
L06	F	52	Breast	Invasive ductal carcinoma	II	T2N0M0
L07	F	50	Breast	Invasive ductal carcinoma	III	T2N1M0
L08	F	38	Breast	Invasive ductal carcinoma	III	T2N1M0
L09	F	34	Breast	Invasive ductal carcinoma	II	T2N1M0
L10	F	62	Breast	Ductal carcinoma in situ	I	TisN0M0
L11	F	40	Breast	Invasive ductal carcinoma	II~III	T2N1M0
L12	F	55	Breast	Invasive ductal carcinoma	II	T2N0M0
L13	F	44	Breast	Invasive ductal carcinoma	II~III	T4N2M0



**Advancing Biomedical Science Through Tissue Arrays**

L14	F	34	Breast	Invasive ductal carcinoma	II~III	T2N1M0
L15	F	72	Breast	Invasive ductal carcinoma	II	T2N0M0
L16	F	82	Breast	Mucinous adenocarcinoma	null	T3N0M0
L17	F	41	Breast	Invasive ductal carcinoma	II~III	T3N1M0
L18	F	18	Breast	Invasive ductal carcinoma	II~III	T2N1M0
L19	F	31	Breast	Invasive ductal carcinoma	II~III	T4N1M0

**Notes:** Bake at 60C for ~60 minutes before use. If antigen retrieving is needed, it is important to avoid **direct-boiling and high pH or high strength** antigen retrieving buffer. For availability of complimentary IHC data, please contact us at [info@pantomics.com](mailto:info@pantomics.com).

**Certified by:** Fancai Li, M.D.

## TNM Classification: Breast carcinoma

### T- Primary tumor

TX - Primary tumor cannot be assessed

TO - No evidence of primary tumor

Tis - Carcinoma in situ, intraductal carcinoma or lobular carcinoma in situ, or Paget's disease of the nipple with no tumor

T1 - Tumor 2 cm or less in greatest dimension

T2 - Tumor more than 2 cm but not more than 5 cm in greatest dimension

T3 - Tumor more than 5 cm in greatest dimension

T4 - Tumor of any size with direct extension to chest wall or skin

### N - Regional lymph nodes

NX - Regional lymph nodes cannot be assessed

NO - No regional lymph node metastasis

N1 - Metastasis to movable ipsilateral lymph node(s)

N2 - Metastasis to ipsilateral lymph nodes(s) fixed to one another or to other structure

N3 - Metastasis to ipsilateral internal mammary lymph node(s)

### M - Distant metastasis

MX - Distant metastasis cannot be assessed

MO - No distant metastasis

M1 - Distant metastasis

TNM classification of malignant tumours, Fifth Edition (1997)