



Cat No: **BRC1501 - Breast cancer tissue array**

Lot#	Cores	Size	Cut	Format	QA/QC		
BRC150101	150	1.1mm	4um	10X15	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, 150 cores including 75 cases of normal, reactive, premalignant and malignant (various grades and stages) tissues of the breast in duplicates. 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 all have a guaranteed six months' shelf-life at 4C from the date of shipment. Each slide has >95% tissue core retention.

Array position	Age	Sex	Histology	Grade	Stage (TNM)	AR	ER	PR	HER2	P53	EGFR	Ki67
A1,B1	40	F	Normal/hyperplasia			++, 5%	++, 5%	++, 2%	-	-	+-	-
A2,B2	30	F	Normal/hyperplasia			++, 1%	++, 2%	++, 2%	-	-	+-	-
A3,B3	46	F	Normal/hyperplasia			-	-	-	-	-	-	-
A4,B4	16	F	Fibroadenoma			-	+++~++++, 60%	+++ , 50%	-	-	-	-
A5,B5	39	F	Fibroadenoma			-	-	-	-	-	-	-
A6,B6	28	F	Ductal carcinoma in situ	I	TisN0M0	-	-	-	+++	+++~++++, 65%	+-	++, 15%
A7,B7	63	F	Invasive ductal carcinoma	II~III	T4N2M0	-	-	-	-	-	-	-
A8,B8	43	F	Invasive ductal carcinoma	II~III	T2N1M0	-	-	-	-	-	-	-
A9,B9	52	F	Invasive ductal carcinoma	II~III	T2N0M0	-	+++~++++, 50%	+++~++++, 10%	++	-	-	-
A10,B10	38	F	Invasive ductal carcinoma	III	T4N0M0	-	-	-	-	+-	+	-
A11,B11	74	F	Invasive ductal carcinoma	II~III	T2N0M0	+, 5%	+++ , 60%	+, 5%	-	+, 5%	-	+, 5%
A12,B12	49	F	Invasive ductal carcinoma	II	T2N0M0	-	-	-	+++	-	-	-
A13,B13	67	F	Invasive ductal carcinoma	II~III	T4N0M0	-	+, 30%	-	-	-	-	-
A14,B14	60	F	Invasive ductal carcinoma	II~III	T4N2M0	-	-	-	-	-	-	-
A15,B15	53	F	Invasive ductal carcinoma	III	T3N0M0	-	++, 50%	+, 5%	+++~++++, 10%	-	-	-
C1,D1	47	F	Invasive ductal carcinoma	II	T3N3M0	-	++, 30%	++, 10%	+++~++++	-	-	+, 5%
C2,D2	49	F	Invasive ductal carcinoma	II	T2N0M0	++, 5%	+++ , 60%	+++ , 90%	+++~++++	-	-	-
C3,D3	55	F	Invasive ductal carcinoma	II~III	T4N2M0	+, 5%	++, 80%	+++ , 80%	-	-	-	-
C4,D4	34	F	Invasive ductal carcinoma	III	T3N2M0	-	-	-	-	+-	-	+, 5%
C5,D5	55	F	Invasive ductal carcinoma	II~III	T1N0M0	+++ , 10%	+++ , 80%	+++ , 80%	-	-	-	+, 5%
C6,D6	51	F	Paget's disease		TisN0M0	-	-	-	+++	-	-	-
C7,D7	41	F	Ductal carcinoma in situ	I	TisN0M0	+++ , 10%	++, 60%	+++ , 80%	+++	-	-	-



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			situ			15%						
C8,D8	43	F	Invasive ductal carcinoma	II	T2N0M0	+, 2%	-	-	+++	-	++ *	++, 15%
C9,D9	58	F	Invasive ductal carcinoma	III	T2N2M0	+, 2%	-	-	+++	-	-	++, 5%
C10,D10	41	F	Invasive ductal carcinoma	II	T2N0M0	+, 5%	+++ , 80%	+++ , 80%	+ ~ + + + -	-	-	-
C11,D11	44	F	Invasive ductal carcinoma	II ~ III	T2N0M0	-	++ , 60%	++ , 10%	+	-	-	-
C12,D12	50	F	Invasive ductal carcinoma	I ~ II	T2N0M0	-	-	-	+++	++ , 5%	++	-
C13,D13	62	F	Invasive ductal carcinoma	II ~ III	T4N3M0	+, 5%	++ , 50%	+ ~ + + , 15%	++	-	-	+ -
C14,D14	54	F	Invasive lobular carcinoma	I ~ II	T2N0M0	-	-	-	-	-	-	-
C15,D15	43	F	Invasive ductal carcinoma	I ~ II	T2N2M0	-	-	-	+++	-	+	++ , 15%
E1,F1	48	F	Invasive ductal carcinoma	II ~ III	T2N2M0	-	-	+++ , 50%	-	-	-	-
E2,F2	40	F	Invasive ductal carcinoma	III	T2N0M0	-	-	-	++	-	++	+ , 2%
E3,F3	50	F	Invasive ductal carcinoma	II	T2N0M0	-	-	-	-	-	++ ~ + + + +	++ ~ + + + + , 20%
E4,F4	35	F	Invasive ductal carcinoma	II	T2N0M0	++ , 2%	+ , 5%	++ , 50%	-	-	-	++ ~ + + + + , 20%
E5,F5	92	F	Invasive ductal carcinoma	II ~ III	T2N0M0	-	-	-	+ ~ + + -	-	-	-
E6,F6	41	F	Invasive ductal carcinoma	II ~ III	T2N0M0	-	+ , 20%	-	++ ~ + + +	+ , 5%	-	+ , 5%
E7,F7	58	F	Invasive ductal carcinoma	II ~ III	T2N0M0	-	-	++ , 15%	-	-	-	-
E8,F8	28	F	Invasive ductal carcinoma	I ~ II	T2N0M0	-	++ , 50%	-	-	-	-	+ , 5%
E9,F9	42	F	Invasive ductal carcinoma	III	T2N0M0	-	-	-	++ ~ + + +	-	-	-
E10,F10	50	F	Invasive ductal carcinoma	II ~ III	T4N3MX	++ , 10%	-	-	++	-	+	-
E11,F11	68	F	Invasive micropapillary carcinoma	II ~ III	T3N1M0	-	++ , 20%	-	-	-	-	-
E12,F12	64	F	Invasive ductal carcinoma	II ~ III	T2N0M0	++ , 15%	+ , 10%	-	+++	++ , 5%?	-	++ ~ + + + + , 30%?
E13,F13	62	F	Invasive ductal carcinoma	II ~ III	T2N0M0	++ , 20%	+ , 10%	-	+++	-?	-	++ , 30%?
E14,F14	50	F	Invasive ductal carcinoma	II	T1N0M0	-	-	-	+++	-	+ ~ + + +	++ , 30%
E15,F15	50	F	Invasive ductal carcinoma	II ~ III	T4N3M1	-	-	-	-	-	-	++ , 5%
G1,H1	65	F	Invasive ductal carcinoma	II ~ III	T2N0M0	-	-	-	-	-	-	++ ~ + + + + , 60%
G2,H2	47	F	Invasive ductal carcinoma	II ~ III	T3N2M0	++ , 20%	++ ~ + + + + , 30%	++ , 5%	+	-	-	-
G3,H3	53	F	Invasive ductal carcinoma	II ~ III	T2N1M0	+, 10%	-	-	+++	++ ~ + + + + , 60%	+++ *	-
G4,H4	51	F	Invasive ductal carcinoma	II ~ III	T4N2M1	++ , 50%	+++ , 100%	-	-	-	-	++ , 2%
G5,H5	51	F	Invasive ductal carcinoma	I ~ II	T2N2M0	-	-	-	+++	+++ , 70%	-	++ ~ + + + + , 30%
G6,H6	33	F	Invasive ductal	III	T2N0M0	++ , 5%	-	-	+++	-	-	++ , 10%



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			carcinoma									
G7,H7	42	F	Invasive ductal carcinoma	II	T2N0M0	+, 10%	++, 50%	+++~++++, 15%	+~++-	-		++, 40%
G8,H8	48	F	Invasive ductal carcinoma	II~III	T2N0M0	-	++, 50%	+++ , 20%	+	++, 60%	-	++, 2%
G9,H9	61	F	Invasive ductal carcinoma	II~III	T2N0M0	-	-	-	+++	++, 60%	-	++, 5%
G10,H10	49	F	Invasive ductal carcinoma	II~III	T2N0M0	+++ , 10%	-	-	+++	-	-	+++~++++, 5%
G11,H11	37	F	Invasive ductal carcinoma	II~III	T2N0M0	-	-	-	-	+++ , 80%	+++~++++	+++ , 80%
G12,H12	44	F	Invasive ductal carcinoma	I	T2N0M0	-	+, 10%	-	+++	-	-	+, 2%
G13,H13	31	F	Invasive ductal carcinoma	II~III	T2N2M0	+, 2%	+, 10%	++, 5%	+++~++	-	+-	+, 5%
G14,H14	36	F	Invasive ductal carcinoma	II	T2N0M0	+, 2%	++, 60%	-	+	-	-	+, 2%
G15,H15	57	F	Invasive ductal carcinoma	II~III	T2N0M0	+++ , 30%	+++ , 50%	-	-	++, 30%	-	++, 2%
I1,J1	52	F	Invasive ductal carcinoma	II	T3N3M0	-	-	-	-	-	+~+++*	++, 30%
I2,J2	55	F	Invasive ductal carcinoma	II	T3N0M0	-	+, 20%	+++~++++, 20%	+	-	+	+, 2%
I3,J3	37	F	Invasive ductal carcinoma	II~III	T3N1M1	+, 10%	+, 20%	+, 20%	+	-	-	++, 2%
I4,J4	54	F	Invasive ductal carcinoma	II	T2N0M0	-	++, 10%	+, 2%	-	-	-	-
I5,J5	43	F	Invasive ductal carcinoma	II~III	T3N1M0	+++ , 20%	-	-	+~+++	-	+~+++	++, 20%
I6,J6	54	F	Invasive ductal carcinoma	III	T2N0M0	-	-	-	+++	++, 60%	-	++, 2%
I7,J7	58	F	Invasive ductal carcinoma	II~III	T3N1M0	-	-	-	-	+~*	-	++, 5%
I8,J8	40	F	Invasive lobular carcinoma	III	T2N0M0	-	++, 50%	++, 15%	-	-	-	++, 5%
I9,J9	66	F	Invasive ductal carcinoma	II~III	T3N0M0	-	-	-	+++	-	-	+, 2%
I10,J10	29	F	Invasive ductal carcinoma	II~III	T3N1M0	-	-	-	-	-	++	++, 5%
I11,J11	46	F	Invasive ductal carcinoma	II~III	T2N1M0	+, 5%	+, 10%	-	+++	-	-	+, 5%
I12,J12	40	F	Invasive ductal carcinoma	II~III	T3N0M0	+++ , 5%	+, 15%	+, 5%	-	+++~++++, 80%	-	+++~++++, 30%
I13,J13	46	F	Invasive ductal carcinoma	II~III	T2N0M0	+++~+++ , 50%	++, 30%	+++ , 80%	+++	+++~++++, 30%	-	++, 5%
I14,J14	35	F	Invasive ductal carcinoma	I~II	T4N2M1	+++ , 5%	+++~++++, 60%	+, 5%	+	-	-	+~+++ , 2%
I15,J15	35	F	Invasive ductal carcinoma	II~III	T2N0M0	-	-	-	+	-	-	+, 2%

Notes: Bake at 60C for 30 minutes before use. If antigen retrieving is needed, it is always a good idea to start with a protocol with weak to mild strength.

Staining Scoring: “-” – no staining; “+” – weak staining; “++” – moderate staining; “+++” – strong staining; “%” – percentage of positive cells.



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)