BIOCARE MEDICAL

Key Antibodies For

Breast Cancer

Breast cancers are the 1st most diagnosed cancer in the United States, with about 14% of new cancer cases classified as breast and contributing 6.9% of cancer deaths yearly. As of 2012, there were approximately 3,000,000 women living with breast cancer in the United States. Those diagnosed with breast cancer have a 5 year survival rate of 89.4%. Over the last 10 years, the new breast cancer case rate has been stable, while the death rate has dropped 1.9% per year. Biocare Medical is proud to offer key breast antibodies that may aid in the identification of their respective proteins by IHC in FFPE tissues.

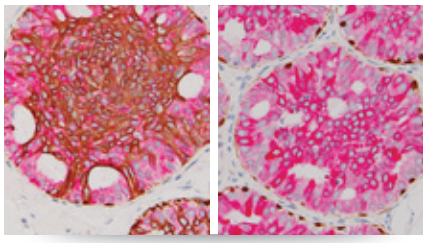
SEER Cancer Statistics Factsheets: Breast Cancer. National Cancer Institute. Bethesda, MD,http://seer.cancer.gov/statfacts/html/breast.html

Key Antibodies for Breast Cancer

Product Name	Source	Clone	Catalog Number
CK5/14 + p63 + CK7/18		XM26 / LL002 + 4A4 + BC1 / EP30	PM 360DS; VP360DSK
GCDFP-15 + Mammaglobin		D6 + 31A5	PM 317DS
p120 + E-cadherin		98/pp120 + EP6	API 3011DS
Estrogen Receptor (ER) [SP1]		SP1	ACA 301; APA 301; OAA 301
Progesterone Receptor (PR) [16]		16	ACA 424; OAA 424
GATA-3		L50-823	CM 405; PM 405; OAI 405
Cytokeratin 7 (CK7)		BC1	CRM 339; PRM 339; IP 339
PD-1		NAT105	ACI 3137; API 3137
c-erbB-2/HER2		EP3	ACA 342; APA 342; OAA 342

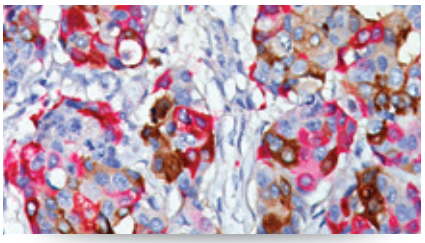
www.biocare.net/breast

Key Antibodies for Breast Cancer



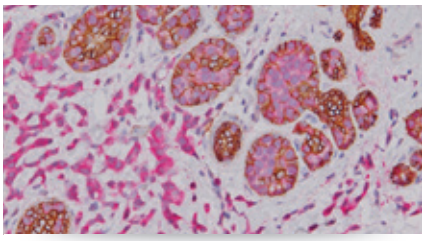
CK5/14 + p63 + CK7/18

This multiplex complements morphological evaluation of breast lesions, due to the differential expression of the luminal (CK7/8) vs. basal and myoepithelial markers (CK5/14, p63). Use of these antibodies has been shown to significantly increase diagnostic inter-observer agreement among pathologists.



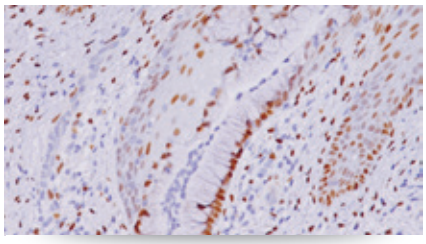
GCDFP-15 + Mammaglobin

Mammaglobin is reported to be a more sensitive marker than GCDFP-15 for breast carcinoma; however, it lacks the specificity of GCDFP-15. The combination of the two markers may help to establish the correct interpretation of metastatic breast carcinoma.



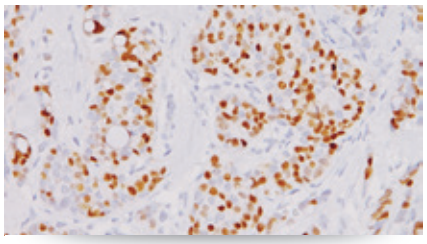
p120 + E-cadherin

Studies have shown accurate categorization of ductal vs. lobular neoplasia in the breast with p120 Catenin + E-cadherin. It can also aid in further clarification in the separation of low-grade ductal carcinoma *in situ* from lobular neoplasia.



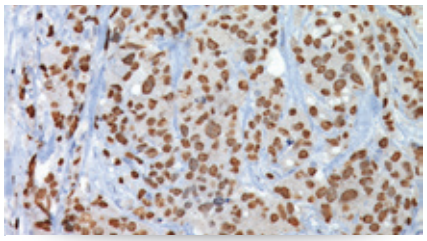
Estrogen Receptor (ER) [SP1]

ER is present in the nuclei of epithelial cells in normal breast and endometrial tissues, as well as a subset of breast carcinomas. The SP1 clone has been shown to have higher sensitivity than mouse monoclonals in breast cancer.



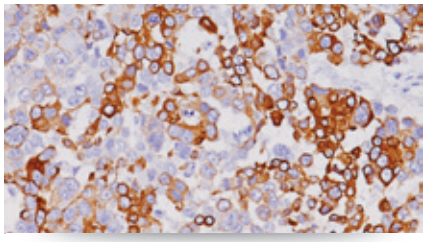
Progesterone Receptor (PR) [16]

PR content of breast cancer tissue is an important parameter in the prediction of prognosis and response to endocrine therapy. The PR [16] is directed against the human PR molecule and recognizes both the A- and B- forms of human progesterone receptor.



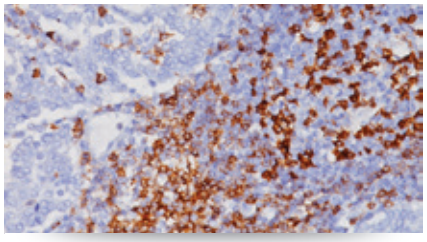
GATA-3

The expression of GATA-3 has a strong association with estrogen receptor-alpha expression in breast cancer. Evidence exists that GATA-3 may be used to predict response to hormonal therapy of breast cancer patients.



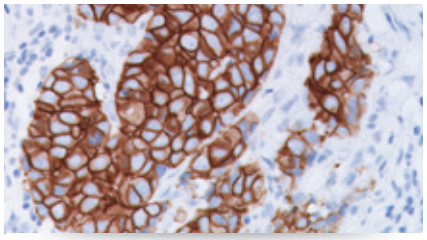
Cytokeratin 7 (CK7)

Cytokeratin 7 is expressed in epithelial cells of ovary, lung and breast. It is often used in conjunction with Cytokeratin 20 and CDX-2 to aid in distinguishing pulmonary, ovarian and breast carcinomas (CK7+) from most colon carcinomas (CK7-)



PD-1

Programmed death 1 (PD-1) is expressed on the cell surface of activated T- and B-cells. The presence of PD-1 positive tumor-infiltrating lymphocytes (TIL) has been associated with poor prognosis in human breast cancers and may be useful in antibody therapy targeting the PD-1/PD-L1 signaling pathway.



c-erbB-2/HER2

The c-erbB-2 protein is over-expressed in a variety of carcinomas, especially breast and ovary. Studies show that c-erbB-2 positive breast cancer usually correlates with negative staining for ER and PR, indicating a poorer predictive outcome with positive c-erbB-2 staining.

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