ZETA Corporation

Precision IVD Antibodies for Anatomic Pathology

PRODUCT FOCUS -- Tools for the Diagnosis of Hereditary Breast Cancer

"Hereditary breast cancer is a complex and important condition, representing about 10% of all breast cancer cases. Identifying highrisk patients and possible carriers of pathogenic genetic variants with indication for genetic testing is an essential step to care for these patients and their families. Treatment can be influenced, both surgical and adjuvant, by the existence of mutation, providing the possibility of better results and preventive measures." *(Haddad, CF Mastology 2020;30:e20200042.)*

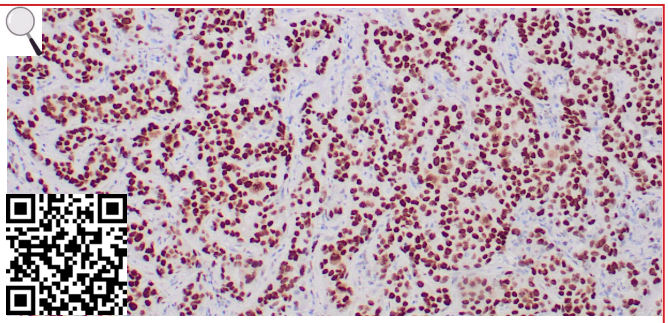
IHC is a vital tool for diagnosing hereditary breast cancer and helps differentiate tumor subtypes and guides targeted therapy options. **Zeta antibodies** to TRPS1, GATA-3, HER2, Estrogen receptor (ER) and others listed below provide crucial diagnostic, prognostic, and therapeutic information for managing patients with hereditary breast cancer.

Zeta Corporation offers recombinant RAbMono™ (Rabbit Monoclonal) and MonoMAb™ (Mouse Monoclonal) recombinant IVD antibodies researched and developed for the anatomic pathology market for Immunohistochemistry. Zeta is incorporating highly sensitive technology to develop many of these primary antibodies that are target-validated and characterized for IHC on FFPE tissue sections. Zeta provides 400+ IVD antibodies for cancer screening and diagnosis.

TRPS1 (clone ZR382)

TRPS1 (Tricho-Rhino-phalangeal Syndrome Type 1) has been found to be a highly specific and sensitive marker for all types of breast carcinomas, especially TNBC (triple-negative breast cancer). TRPS1 was identified to be a novel GATA transcriptional factor, functioning as an essential regulator for growth and differentiation of normal mammary epithelial cells and possibly involved in the development of breast cancer. A recent study showed that TRPS1, which is highly expressed in triple-negative... **(more)**

Species: Recombinant Rabbit Monoclonal **Cat#:** Z2673

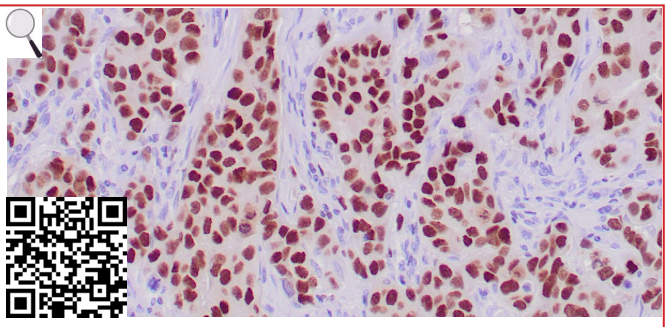


IHC: Human breast carcinoma stained with ZR382

GATA-3 (clone ZR358)

Among other roles, GATA-3 is involved in luminal cell differentiation in the mammary gland and appears to control a set of genes involved in the differentiation and proliferation of breast cancer. GATA-3 expression is associated with the expression of estrogen receptor-alpha (ER) in breast cancer. GATA-3 is a novel marker for bladder cancer. The study showed that GATA-3 stained 67% of urothelial Carcinomas but none of the prostate or renal carcinomas. **(more)**

Species: Recombinant Rabbit Monoclonal **Cat#:** Z2742

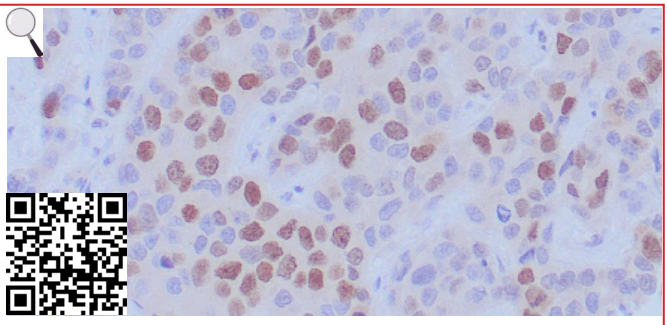


IHC: Breast ductal carcinoma stained with ZR358

BRCA-1 (clone ZR455)

Recognizes the BRCA-1 protein in IHC. Mutations in the BRCA-1 genes have been linked to an increased risk of developing breast and ovarian cancers. BRCA-1 IHC is commonly used in research and clinical settings to provide valuable information about the status of the BRCA-1 protein in cancerous and non-cancerous tissues. Changes in BRCA-1 protein can be associated with certain types of breast and ovarian cancers, useful in the diagnosis, prognosis, and treatment planning for patients. **(more)**

Species: Recombinant Rabbit Monoclonal **Cat#:** Z2812

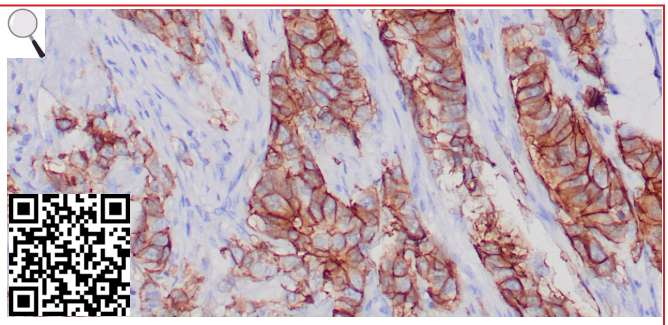


IHC: Breast carcinoma stained with ZR455

Her-2/neu (clone ZR218)

Recognizes Her-2/Neu (Human epidermal growth factor receptor 2), a growth factor receptor that regulates cell growth and survival that is routinely assessed in all primary invasive breast cancer and metastatic/recurrent breast cancer to inform eligibility for anti-HER2 directed targeted therapy. HER-2/Neu is an oncogenic driver with negative prognostic impact in breast cancer. HER-2/Neu testing identifies tumors that may respond to anti-HER2 directed targeted therapy. **(more)**

Species: Recombinant Rabbit Monoclonal **Cat#:** Z2499

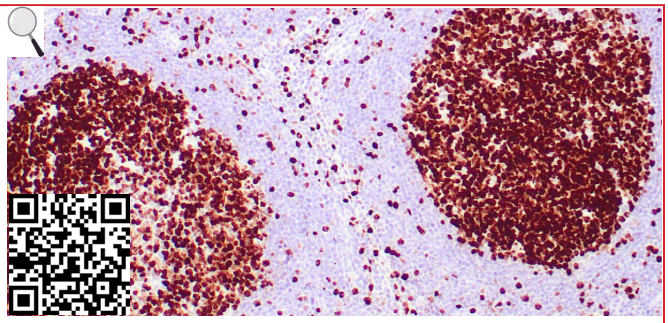


IHC: Breast infiltrating ductal carcinoma stained with ZR218

Ki-67 (clone ZM67)

Recognizes Ki-67, a nuclear, non-histone protein that is present in all stages of the cell cycle except G0. Ki-67 expression may also prove to be important for distinguishing between malignant and benign peripheral nerve sheath tumors. Ki-67 labeling index has been shown to be a prognostic marker in a number of neoplasms including grade II astrocytoma, oligodendroglioma, colon carcinoma, and breast carcinoma. In general, Ki-67 is a good marker of proliferating cell populations. **(more)**

Species: Recombinant Mouse Monoclonal **Cat#:** Z2377

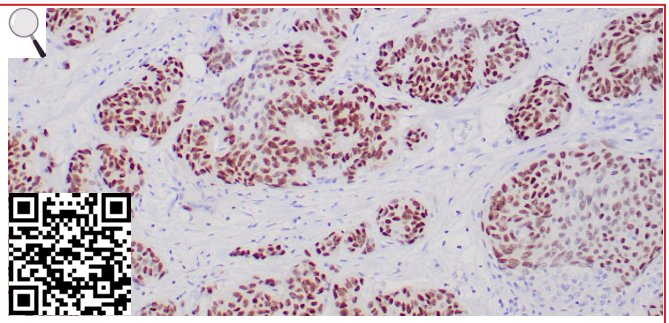


IHC: Human lymph node stained with ZM67

ER (clone ZR147)

Estrogen receptor (ER) is present in the nuclei of epithelial cells in normal breast and endometrial tissues and a subset of breast carcinomas. Immunohistochemical assays show that positive steroid hormone status has predicted favorable overall survival, independently of hormonal treatment. Secondly, ERa can be used as a tumor marker, preferentially in combination with an antibody to the progesterone receptor, e.g., in the classification of adenocarcinomas. **(more)**

Species: Recombinant Rabbit Monoclonal **Cat#:** Z2691

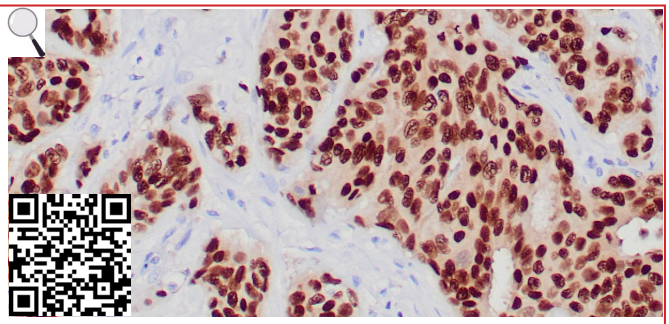


IHC: Human breast carcinoma stained with ZR147

PR (clone ZR290)

The progesterone receptor (PR) is an estrogen regulated protein. It has been proposed that expression of PR determination indicates a responsive estrogen receptor (ER) pathway, and therefore, may predict likely response to endocrine therapy in human breast cancer. PR determination provides supplementary information to ER, both in predicting response to endocrine therapy and estimating survival. PR has proved superior to ER as a prognostic indicator in some studies. **(more)**

Species: Recombinant Rabbit Monoclonal **Cat#:** Z2728



IHC: Human breast carcinoma stained with ZR290

Related Antibodies	Species	Clone	Cat. #
BRCA-1	Rabbit	ZR455	Z2812
c-myc	Rabbit	ZR355	Z2734
ER	Mouse	ZM319	Z2625
GATA-3	Mouse	L50-823	Z2227
Her-2/neu	Rabbit	ZR5	Z2025

Related Antibodies	Species	Clone	Cat. #
Ki-67	Mouse	MIB-1	Z2305
Ki-67	Rabbit	ZR433	Z2789
p53	Mouse	DO-7	Z2029
p53	Rabbit	ZR153	Z2466
PR	Rabbit	ZR4	Z2023

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