GENE BIO SOLUTION

GCDFP-15 + MAMMAGLOBIN

Format	Catalog no. -	Pack size	Dilution
Concentrated	GB317DSAA	-	-
Prediluted		6.0 mL	Ready to use

PRODUCT DESCRIPTION -

Gross cystic disease fluid protein (mouse monoclonal) is a breast secretion including several glycoproteins, including GCDFP-15. It is regarded as an indicator of apocrine differentiation. Multiple studies have demonstrated that GCDFP-15 (BRST-2) serves as a specific marker for breast cancer in formalin-fixed paraffin-embedded tissues and cytological preparations (fine needle aspirates). Additional tissues that express GCDFP-15 include axillary sweat glands and submandibular salivary glands.

Mammaglobin (rabbit monoclonal), a mammary-specific member of the uteroglobin family, is recognized for its overexpression in human breast cancer. Research indicates that mammaglobin is among the earliest relatively mammary-specific and mammary-sensitive biomarkers. Mammaglobin identifies ductal and lobular epithelial cells in normal breast tissue. Nonetheless, mammaglobin is expressed at a higher frequency in lobular cancer compared to ductal cell carcinoma. Research has indicated that mammaglobin remained unchanged in the metastatic lymph node location. Mammaglobin has been demonstrated to be expressed in non-breast cancer locations, including endometrioid carcinomas (39%), endocervical adenocarcinoma in situ (45%), sweat gland carcinomas (40%), salivary gland carcinoma (20%), melanoma (6%), and is also present in a minor percentage of ovarian carcinomas and pancreatic adenocarcinomas.

Mammaglobin is present in 50-60% of metastatic breast tumors, whereas GCDFP-15 is found in around 20-25%. Mammaglobin is a more sensitive biomarker than GCDFP-15 for breast carcinoma; nevertheless, it does not possess the specificity of GCDFP-15. The integration of GCDFP-15, Mammaglobin, and other markers may facilitate the accurate interpretation of metastatic breast cancer.

INTENDED USE -

GCDFP-15 + Mammoglobin is designed for laboratory application in the qualitative detection of GCDFP-15 and Mammoglobin proteins via immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence must be supplemented by morphological studies utilizing appropriate controls and assessed in conjunction with the patient's clinical history and other diagnostic tests by a skilled pathologist.

626 Wilshire Blvd, Suite 410 Los Angeles, CA 90017
info@genebiosolution.com
www.genebiosolution.com
+1 (408) 580-1396

SUMMARY AND EXPLANATION -

Gross cystic disease fluid protein (mouse monoclonal) is a breast secretion including several glycoproteins, including GCDFP-15. It is regarded as an indicator of apocrine differentiation. Multiple studies have demonstrated that GCDFP-15 (BRST-2) serves as a specific marker for breast cancer in formalin-fixed paraffin-embedded tissues and cytological preparations (fine needle aspirates). Additional tissues that express GCDFP-15 include axillary sweat glands and submandibular salivary glands.

Mammaglobin (rabbit monoclonal), a mammary-specific member of the uteroglobin family, is recognized for its overexpression in human breast cancer. Research indicates that mammaglobin is among the earliest relatively mammary-specific and mammary-sensitive biomarkers. Mammaglobin identifies ductal and lobular epithelial cells in normal breast tissue. Nonetheless, mammaglobin is expressed at a higher frequency in lobular cancer compared to ductal cell carcinoma. Research has indicated that mammaglobin remained unchanged in the metastatic lymph node location. Mammaglobin has been demonstrated to be expressed in non-breast cancer locations, including endometrioid carcinomas (39%), endocervical adenocarcinoma in situ (45%), sweat gland carcinomas (40%), salivary gland carcinoma (20%), melanoma (6%), and is also present in a minor percentage of ovarian carcinomas and pancreatic adenocarcinomas.

Mammaglobin is present in 50-60% of metastatic breast tumors, whereas GCDFP-15 is found in around 20-25%. Mammaglobin is a more sensitive biomarker than GCDFP-15 for breast carcinoma; nevertheless, it does not possess the specificity of GCDFP-15. The integration of GCDFP-15, Mammaglobin, and other markers may facilitate the accurate interpretation of metastatic breast cancer.

PRINCIPLE OF PROCEDURE -

This product is a primary antibody cocktail comprising mouse and rabbit antibodies, suitable for use in a Multiplex IHC staining process to achieve a two-color stain. After applying the primary antibody cocktail to the tissue sample, detection is conducted using distinct secondary antibodies tailored to each species (i.e., mouse or rabbit) of the primary antibody cocktail, which are conjugated to horseradish peroxidase (HRP) or alkaline phosphatase (AP) enzymes. Visualization is achieved through the use of chromogenic substrates (DAB and Warp Red), which are enzymatically activated (by HRP or AP, respectively) to generate a colored reaction product at the antigen site. The specimen may undergo counterstaining and be coverslipped. Results are analyzed utilizing a light microscope.

SOURCE - Mouse monoclonal and Rabbit monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - D6 (GCDFP-15) and 31A5 (Mammaglobin)

ISOTYPE - IgG2a (GCDFP-15) and IgG (Mammaglobin)

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - GCDFP-15 and Mammaglobin

CELLULAR LOCALISATION - GCDFP-15 (Cytoplasmic): Brown , Mammaglobin (Cytoplasmic): Red

POSITIVE TISSUE CONTROL - Breast

KNOWN APPLICATIONS - Immunohistochemistry
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user.

Materials required but not provided -

1) Positive tissue control - Breast
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin

14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. The clinical interpretation of any positive or negative staining should be evaluated within the context of clinical presentation, morphology and other histopathological criteria by a qualified pathologist. The clinical interpretation of any positive or negative staining should be complemented by morphological studies using proper positive and negative internal and external controls as well as other diagnostic tests.