GENE BIO SOLUTION

E-Cadherin (RM)

Format	Catalog No.	Pack size	Dilution
Concentrated	GB3012A,C	0.1, 1.0 mL	1:50
Prediluted	GB3012AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

Immunohistochemical analyses have demonstrated that E-cadherin antibody is expressed in breast ductal cancer, while its expression is diminished in lobular carcinoma. Consequently, mouse monoclonal anti-E-cadherin [HECD-1] is employed by pathologists to distinguish between ductal and lobular breast carcinomas, with a documented sensitivity and specificity of roughly 90%. A rabbit monoclonal E-cadherin antibody may integrate the optimal characteristics of both mouse monoclonal antibodies and rabbit antisera.

INTENDED USE -

E-Cadherin (RM) [EP6] is a rabbit monoclonal antibody designed for laboratory application in the qualitative detection of E-cadherin protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical assessment of any staining or its absence must be supplemented by morphological analyses utilizing appropriate controls and should be interpreted in conjunction with the patient's clinical history and other diagnostic evaluations by a certified pathologist.

SUMMARY AND EXPLANATION -

E-Cadherin is a transmembrane glycoprotein essential for cell-cell adhesion in epithelial tissues. The adherens junction between epithelial cells consists of extracellular domains of E-Cadherin from neighboring cells, which engage through a molecular zipper motif. In normal tissues, E-Cadherin immunostaining is confined to the membranes of epithelial cells, reflecting its function in cell adhesion. Immunohistochemical analyses have demonstrated the expression of E-Cadherin in breast ductal cancer, but its expression is diminished in lobular carcinoma. Consequently, mouse monoclonal anti-E-Cadherin [HECD-1] has been employed by pathologists to distinguish between ductal and lobular breast carcinomas, exhibiting a sensitivity and specificity of approximately 90% as reported in current literature. The rabbit monoclonal E-Cadherin antibody may integrate the optimal characteristics of both monoclonal antibodies and rabbit antisera.

PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection method may be employed. A single-step procedure will utilize a polymer tagged with an enzyme that attaches to the main antibody. A two-step process will include a linker antibody that binds to the main antibody. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

SOURCE - Rabbit monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE- EP6(previouslyknownasEP700Y)

ISOTYPE - IgG

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - E-Cadherin

CELLULAR LOCALISATION - Membrane

POSITIVE TISSUE CONTROL - Normal breast or breast ductal cell carcinoma

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. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Materials required but not provided -

1) Positivetissuecontrol- Normalbreastorbreastductalcellcarcinoma
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.