GENE BIO SOLUTION

p120 Catenin

Format	Catalog no.	Pack size	Dilution
Concentrated	GB3008A,B	0.1, 0.5 mL	1:100
Prediluted	GB3008AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

P120 is a nucleolar protein related to proliferation, present in the majority of human malignant tumors, but absent in quiescent normal cells. In colorectal cancer, the aberrant localization of p120 Catenin is associated with the diminished cytoplasmic presence of E-cadherin. Research has demonstrated that p120 staining effectively distinguishes between ductal and lobular neoplasia in the breast. The expression of p120 further elucidates the distinction between low-grade ductal carcinoma in situ and lobular neoplasia. Research has demonstrated that the modified expression of p120 Catenin antibody is indicative of unfavorable prognosis in invasive breast cancer.

INTENDED USE -

For In Vitro Diagnostic Use p120 Catenin [98/pp120] is a mouse monoclonal antibody designed for laboratory application in the qualitative detection of p120 catenin protein using 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.

SUMMARY AND EXPLANATION -

P120 is a nucleolar protein related to proliferation, present in the majority of human malignant tumors, but absent in quiescent normal cells. The expression of p120 has been statistically associated with the proliferative potential in human lung cancer cells and may serve as a prognostic marker for resected Stage I lung adenocarcinoma. In colorectal cancer, the aberrant location of p120 catenin correlates with the loss of cytoplasmic E-cadherin and is linked to a considerable decrease in patient survival, as well as an escalation in tumor stage and lymph node metastases. This research underscores the significance of both p120 catenin and E-cadherin in the advancement of colorectal cancer. The differentiation between lobular and ductal breast lesions is significant in various contexts. The diagnostic repeatability of lobular vs ductal lesions, based solely on histology, is suboptimal.

Accurate differentiation among atypical lobular hyperplasia, lobular carcinoma in situ, and low-grade ductal carcinoma in situ is essential for effective patient care. E-cadherin, a negative membrane marker for lobular neoplasia, aids in differentiating ductal neoplasia from lobular neoplasia; however, as a negative marker for lobular carcinoma, its interpretation can be complex, especially in severe instances. Research has demonstrated that p120 staining enables precise differentiation between ductal and lobular neoplasia in the breast, facilitating the distinction of low-grade ductal carcinoma in situ from lobular neoplasia. From a diagnostic perspective, p120 is very valuable in detecting early lesions of lobular neoplasia. Research indicates that modified expression of p120 catenin is associated with unfavorable outcomes in invasive breast cancer.

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, a one-, two-, or three-step detection protocol may be utilized. The one-step approach will utilize an enzyme-conjugated polymer that attaches to the main antibody. A two-step approach will involve the addition of a secondary antibody to bind to the primary antibody. A polymer tagged with an enzyme is subsequently introduced to bind to the secondary antibody. The three-step detection protocol will include the addition of a secondary antibody to bind to the main antibody, succeeded by a linker antibody step to enhance binding efficacy. 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 - Mouse monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - 98/pp120

ISOTYPE - IgG1

PROTEIN CONCENTRATION - Call for lot specific IgG concentration.

EPITOPE/ANTIGEN - p120 catenin

CELLULAR LOCALISATION - Cytoplasm & cell membrane

POSITIVE TISSUE CONTROL - Breast cancer

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. 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-Breastcancer
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.