

p120 Catenin

Concentrated and Prediluted Monoclonal Antibody
902-3008-070517

BIOCARE
M E D I C A L

Catalog Number:	ACR 3008 A, B	APR 3008 AA
Description:	0.1, 0.5 ml, prediluted	6.0 ml, prediluted
Dilution:	1:100	Ready-to-use
Diluent:	Renoir Red	N/A

Intended Use:

For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

p120 is a proliferation-associated nucleolar protein found in most human malignant tumors, but not in resting normal cells. The expression of p120 has been statistically correlated with the proliferation capacity in human lung cancer cells and could be a prognostic marker for resected Stage I lung adenocarcinoma. In colorectal cancer the altered localization of p120 catenin has been found to correspond with loss of cytoplasmic localization of E-cadherin and has been associated with a significant reduction in patient survival time and an increase in tumor stage and lymph node metastasis. This data highlights the importance of both p120 catenin and E-cadherin in the progression of colorectal carcinoma. The distinction between lobular and ductal lesions of the breast is important in several circumstances. Diagnostic reproducibility of lobular vs. ductal lesions, based on histology alone, is less than optimal. The proper distinction between atypical lobular hyperplasia, lobular carcinoma in situ and low-grade ductal carcinoma in situ is critical for patient management. E-cadherin, a negative membrane marker for lobular neoplasia, is useful in the distinction of ductal neoplasia vs. lobular; however as a negative marker for lobular carcinoma, it can be difficult to interpret, particularly in challenging cases. Studies have shown accurate categorization of ductal vs. lobular neoplasia in the breast was achieved p120 staining and helped give further clarification in the separation of low-grade ductal carcinoma in situ from lobular neoplasia. Diagnostically, p120 can be particularly useful in identifying early lesions of lobular neoplasia. Studies have also shown that altered expression of p120 catenin predicts poor outcome in invasive breast cancer.

Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a secondary antibody is added to bind to the primary antibody. An enzyme label is then added to bind to the secondary antibody; this detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Human; others not tested

Clone: 98/pp120

Isotype: IgG1

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.

Epitope/Antigen: p120 catenin

Cellular Localization: Cytoplasm & membrane

Positive Control: Breast cancer

Normal Tissue: Breast

Abnormal Tissue: Breast cancer

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Performance Characteristics:

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 Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. These products are tools that can be used for interpretation of morphological findings in conjunction with other diagnostic tests and pertinent clinical data by a qualified pathologist.

Quality Control:

Refer to CLSI Quality Standards for Design and Implementation of Immunohistochemistry Assays; Approved Guideline-Second edition (I/LA28-A2) CLSI Wayne, PA USA (www.clsi.org). 2011

Precautions:

This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC.

Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)

Specimens before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.

Microbial contamination of reagents may result in an increase in nonspecific staining. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change. The MSDS is available upon request and is located at <http://biocare.net/support/msds/>.

Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

Limitations and Warranty

There are no warranties, expressed or implied, which extend beyond this description. Biocare is not liable for property damage, personal injury, or economic loss caused by this product.

References:

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2. Papotti M, *et al.* Galectin-3 and HBME-1 expression in well-differentiated thyroid tumors with follicular architecture of uncertain malignant potential. *Mod Pathol.* 2005 Apr; 18(4):541-6.
3. Chivukula M, *et al.* Pleomorphic lobular carcinoma in situ (PLCIS) on breast core needle biopsies: clinical significance and immunoprofile. *Am J Surg Pathol.* 2008 Nov; 32(11):1721-6.
4. Esposito NN, Chivukula M, Dabbs DJ. The ductal phenotypic expression of the Ecadherin/ catenin complex in tubulolobular carcinoma of the breast: an immunohistochemical and



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7. Anastasiadis PZ, Reynolds AB. The p120 catenin family: complex roles in adhesion, signaling and cancer. *J Cell Sci.* 2000 Apr; 113 (Pt 8):1319-34.
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9. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections; Approved guideline-Third Edition CLSI document M29-A3 Wayne, PA 2005



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