3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

MONOCLONAL ANTI-PAN CADHERIN
CLONE CH-19
Mouse Ascites Fluid

Product No. **C 1821**

Product Description

Monoclonal Anti-Pan Cadherin (mouse IgG1 isotype) is derived from the CH-19 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice. A synthetic peptide corresponding to the C-terminal amino acids of chicken N-Cadherin with an extra N-terminal lysine residue (24 amino acids) coupled with glutaraldehyde to keyhole limpet hemocyanin (KLH) was used as the immunogen.[1]
The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Monoclonal Anti-Pan Cadherin reacts extensively with all known members of the cadherin family. The cadherins migrate in the molecular weight range of 125 to 140 kDa and are tissue dependent.
The antibody reacts using frozen sections, protease-digested, formalin-fixed paraffin-embedded, Bouin's-fixed and acetone-fixed tissue sections.
It reacts with cultured cell line preparations.
Cross-reaction has been observed with human, rabbit, bovine, goat, sheep, dog, pig, guinea pig, hamster, cat, rat, mouse, psammomys, chicken, frog and snake.

Monoclonal Anti-Pan Cadherin may be used for:

1. Immunochemical and immunocytochemical detection of members of the cadherin family in normal and neoplastic cells and tissues.
2. Identification of genetically engineered proteins containing the C-terminal cadherin tail.
3. Screening of cDNA expression libraries for identification of novel members of the cadherin family.
1. Demonstration of adherens-type cell-cell junctions irrespective of their cadherin subtype.

Cadherins are members of a multigene family of single chain glycoprotein receptors mediating Ca^{2+}-dependent cell-cell adhesion.[1,2,3] The N-terminal part of these molecules is exposed on the external cell surface and contains the putative homophilic binding sites. This is followed by a typical single transmembrane sequence and usually a cytoplasmic C-terminal tail which mediates interaction with the microfilament system through molecules such as catenins, plakoglobin, vinculin, and α-actinin.[4] Cadherins that are primarily located in areas of cell-cell contacts are involved in selective cell sorting and in the mechanical cytoplasmic response. They are implicated in morphogenetic processes, intercellular signalling and in tumor invasiveness and metastasis.[5] Multiple cadherins have been characterized from diverse species and tissues including E-Cadherin,
N-Cadherin (A-CAM), P-Cadherin, V-Cadherin,
R-Cadherin and T-Cadherin. Specific polyclonal antibodies against a highly conserved sequence from the cytoplasmic C-terminal of N-Cadherin has been prepared.[6,7]

Reagents

The product is provided as ascites fluid with 15 mM sodium azide as a preservative.

Precautions

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Product Profile

1. A minimum working dilution of 1:500 was determined by indirect immunofluorescent labeling of cultured MDBK cells.
2. A minimum working dilution of 1:500 was determined by indirect immunohistochemical labeling of protease-digested, formalin-fixed, paraffin-embedded animal heart sections.

In order to obtain best results, it is recommended that each individual user determine the optimum working dilution for their system by titration assay

Storage

Store at 2-8 °C for up to one month.

For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

References

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6. Geiger, B., et al., J. Cell Science, **97**, 607 (1990).
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