

Product Information

Monoclonal Anti-Pan Cadherin-FITC Clone CH-19

produced in mouse, purified immunoglobulin

Catalog Number **F7178**

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 immunized with a synthetic peptide corresponding to the C-terminal amino acids of chicken N-cadherin, conjugated to KLH. The conjugate is prepared by conjugation of the antibody purified from ascites fluid to fluorescein isothiocyanate, isomer I (FITC), and then further purified to remove free FITC.

Monoclonal Anti-Pan Cadherin-FITC recognizes pan cadherin by direct immunofluorescent staining. The antibody reacts with several classical members of the cadherin family derived from various species.

Cadherins are members of a superfamily of more than forty Ca^{2+} dependent transmembrane glycoproteins.¹⁻⁵ Cadherins consist an N-terminal region that is exposed on the external cell surface and contains the putative homophilic binding sites. There is also a typical single transmembrane sequence and usually a cytoplasmic C-terminal tail that mediates interaction with the microfilament system through molecules such as catenins, plakoglobin, vinculin, and α -actinin.⁶ Cadherins are involved in promotion and maintenance of cell adhesion in multicellular organisms and are expressed in a tissue specific manner. Cadherins participate in a variety of differentiation and tissue morphogenetic processes as well as in modulation of tumor invasion and metastasis.^{5,7,8} Cadherins have also been implicated in cell signaling regulation.^{4,5}

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide.

Antibody concentration: ~2 mg/ml

F/P Molar Ratio: 3-8

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation. Working dilution samples should be discarded if not used within 12 hours.

Note: Store product protected from light.

Product Profile

Direct immunofluorescence: a minimum working dilution of 1:125 is recommended using methanol/acetone fixed cultured MDBK cells.

Note: In order to obtain best results in various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Takeichi, M., *Development*, **102**, 639-655 (1988).
2. Takeichi, M., *Ann. Rev. Biochem.*, **59**, 237-252 (1990).
3. Takeichi, M., *Science*, **251**, 1451-1455 (1991).
4. Angst, B.D., et al., *J. Cell Sci.*, **114**, 629-641 (2001).
5. Ivanov, D.B., et al., *Biochemistry (Moscow)*, **66**, 1174-1186 (2001).
6. Grunwald, G., *Curr. Opin. Cell Biol.*, **5**, 797- 805 (1993).
7. Takeichi, M., *Curr. Opin. Cell Biol.*, **5**, 806-811 (1993).
8. Geiger, B., et al., *J. Cell Science*, **97**, 607-614 (1990).
9. Kartenbeck, J., et al., *J. Cell. Biol.*, **113**, 881-892 (1991).

NRC,KAA,PHC 09/08-1

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