

cadherin-19 (P-18): sc-84770

BACKGROUND

The cadherins are a family of Ca²⁺-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of structure and morphogenesis. Cadherins each contain a large extracellular domain at the N-terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. Cadherin-19, also known as CDH19, CDH7 or CDH7L2, is a 772 amino acid single-pass type I membrane protein that contains five cadherin domains. Expressed in a variety of tissues, cadherin-19 functions as a Ca²⁺-dependent cell-cell adhesion glycoprotein that is thought to be involved in the sorting of heterogeneous cell types. The gene encoding cadherin-19 maps to a cadherin cluster on human chromosome 18, a chromosome which houses over 300 protein-coding genes and contains nearly 76 million bases.

REFERENCES

1. Kremmidiotis, G., Baker, E., Crawford, J., Eyre, H.J., Nahmias, J. and Callen, D.F. 1998. Localization of human cadherin genes to chromosome regions exhibiting cancer-related loss of heterozygosity. *Genomics* 49: 467-471.
2. Shimoyama, Y., Tsujimoto, G., Kitajima, M. and Natori, M. 2000. Identification of three human type-II classic cadherins and frequent heterophilic interactions between different subclasses of type-II classic cadherins. *Biochem. J.* 349 (Pt. 1): 159-167.
3. Kools, P., Van Imschoot, G. and van Roy, F. 2000. Characterization of three novel human cadherin genes (CDH7, CDH19, and CDH20) clustered on chromosome 18q22-q23 and with high homology to chicken cadherin-7. *Genomics* 68: 283-295.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 603016. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Hajra, K.M. and Fearon, E.R. 2002. Cadherin and catenin alterations in human cancer. *Genes Chromosomes Cancer* 34: 255-268.

CHROMOSOMAL LOCATION

Genetic locus: CDH19 (human) mapping to 18q22.1.

SOURCE

cadherin-19 (P-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of cadherin-19 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84770 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

cadherin-19 (P-18) is recommended for detection of cadherin-19 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other cadherin family members.

Suitable for use as control antibody for cadherin-19 siRNA (h): sc-72774, cadherin-19 shRNA Plasmid (h): sc-72774-SH and cadherin-19 shRNA (h) Lentiviral Particles: sc-72774-V.

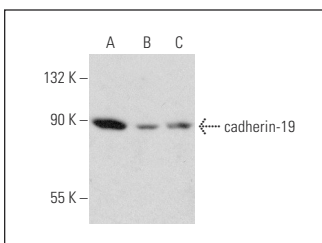
Molecular Weight of cadherin-19: 87 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, MIA PaCa-2 cell lysate: sc-2285 or TE671 cell lysate: sc-2416.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



cadherin-19 (P-18): sc-84770. Western blot analysis of cadherin-19 expression in TE671 (A), MIA PaCa-2 (B) and IMR-32 (C) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **cadherin-19 (D-1): sc-376990**, our highly recommended monoclonal alternative to cadherin-19 (P-18).