

P-cadherin (6A9): sc-33635

BACKGROUND

Cadherins comprise a family of Ca^{2+} -dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. The classical cadherins, E-, N- and P-cadherin, consist of large extracellular domains characterized by a series of five homologous NH_2 terminal repeats. The most distal of these cadherins is thought to be responsible for binding specificity, transmembrane domains and carboxy terminal intracellular domains. The relatively short intracellular domains interact with a variety of cytoplasmic proteins, such as β -catenin, to regulate cadherin function. Members of this family of adhesion proteins include rat cadherin K (and its human homolog, cadherin-6), R-cadherin, B-cadherin, E/P cadherin and cadherin-5.

REFERENCES

1. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development* 102: 639-655.
2. Hatta, M., et al. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. *Nucleic Acids Res.* 19: 4437-4441.
3. Koch, P.J., et al. 1994. Desmosomal cadherins: another growing multigene family of adhesion molecules. *Curr. Opin. Cell Biol.* 6: 682-687.
4. Ranscht, B. 1994. Cadherins and catenins: interactions and functions in embryonic development. *Curr. Opin. Cell Biol.* 6: 740-746.
5. Hinck, L., et al. 1994. Dynamics of cadherin/catenin complex formation: novel protein interactions and pathways of complex assembly. *J. Cell Biol.* 125: 1327-1340.
6. Ayalon, O., et al. 1994. Spatial and temporal relationships between cadherins and PECAM-1 in cell-cell junctions of human endothelial cells. *J. Cell Biol.* 126: 247-258.

CHROMOSOMAL LOCATION

Genetic locus: CDH3 (human) mapping to 16q22.1; Cdh3 (mouse) mapping to 8 D3.

SOURCE

P-cadherin (6A9) is a mouse monoclonal antibody raised against a 72 kDa P-cadherin fragment of human origin that was isolated from A-431 trypsinized membranes.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

P-cadherin (6A9) is recommended for detection of P-cadherin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for P-cadherin siRNA (h): sc-29420, P-cadherin siRNA (m): sc-36135, P-cadherin shRNA Plasmid (h): sc-29420-SH, P-cadherin shRNA Plasmid (m): sc-36135-SH, P-cadherin shRNA (h) Lentiviral Particles: sc-29420-V and P-cadherin shRNA (m) Lentiviral Particles: sc-36135-V.

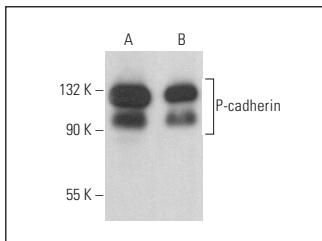
Molecular Weight of P-cadherin: 116 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262, P-cadherin (h2): 293T Lysate: sc-177672 or A-431 whole cell lysate: sc-2201.

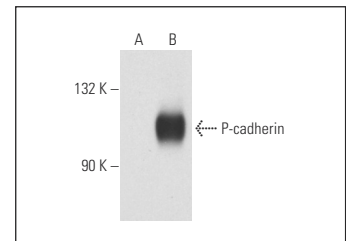
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA




P-cadherin (6A9): sc-33635. Western blot analysis of P-cadherin expression in A-431 (A) and Caco-2 (B) whole cell lysates.



P-cadherin (6A9): sc-33635. Western blot analysis of P-cadherin expression in non-transfected: sc-117752 (A) and human P-cadherin transfected: sc-177672 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Schmidt, M., et al. 2007. A novel breast cancer cell line initially established from pleural effusion: evolution towards a more aggressive phenotype. *Int. J. Oncol.* 30: 565-572.



See **P-cadherin (A-10): sc-74545** for P-cadherin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.