SANTA CRUZ BIOTECHNOLOGY, INC.

P-cadherin (D-14): sc-31027

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-cadherin, P-cadherin and cadherin-5.

REFERENCES

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2. Hatta, M., et al. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. Nucleic Acids Res. 19: 4437-4441.
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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.
7. Tanihara, H., et al. 1994. Cloning of five human cadherins clarifies characteristic features of cadherin extracellular domain and provides further evidence for two structurally different types of cadherin. Cell Adhes. Commun. 2: 15-26.
8. Takeichi, M. 1995. Morphogenetic roles of classic cadherins. Curr. Opin. Cell Biol. 7: 619-627.
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CHROMOSOMAL LOCATION

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

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.

SOURCE

P-cadherin (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of P-cadherin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31027 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

P-cadherin (D-14) is recommended for detection of P-cadherin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

P-cadherin (D-14) is also recommended for detection of P-cadherin in additional species, including equine, canine and bovine.

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: 118 kDa.

Positive Controls: F9 cell lysate: sc-2245, MES-SA/Dx5 cell lysate: sc-2284 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.