SANTA CRUZ BIOTECHNOLOGY, INC.

P-cadherin (N-19): sc-1501

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 cytoplas-mic 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.

CHROMOSOMAL LOCATION

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

SOURCE

P-cadherin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus 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.

P-cadherin (N-19) is available conjugated to either phycoerythrin (sc-1501 PE, 200 µg/ml) or fluorescein (sc-1501 FITC, 200 µg/ml), for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-1501 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

P-cadherin (N-19) 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), 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), immunohistochemistry (including paraffin-embedded sections) (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 (N-19) is also recommended for detection of P-cadherin in additional species, including equine, canine, bovine and porcine.

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.

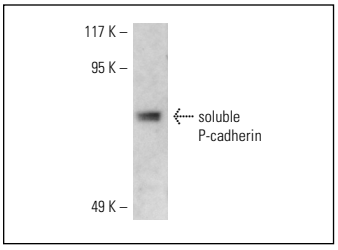
Molecular Weight of P-cadherin: 118 kDa.

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

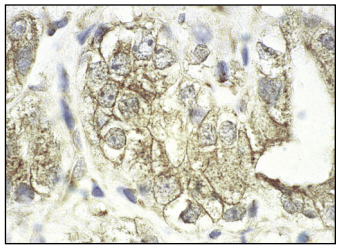
STORAGE

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

DATA



P-cadherin (N-19): sc-1501. Western blot analysis of soluble P-cadherin expression in MES-SA/Dx5 whole cell lysate.



P-cadherin (N-19): sc-1501. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate carcinoma tissue showing membrane staining.

SELECT PRODUCT CITATIONS

1. Soler, A.P., et al. 1997. Expression of P-cadherin identifies prostate specific antigen negative cells in epithelial tissues of male sexual accessory organs and in prostatic carcinomas. Implications for prostate cancer biology. Am. J. Pathol. 151: 471-478.
2. Arenas, M.I., et al. 2000. E-, N- and P-cadherin, and α-, β- and γ-catenin protein expression in normal, hyperplastic and carcinomatous human prostate. Histochem. J. 32: 659-667.
3. Srinivasan, K., et al. 2003. Netrin-1/neogenin interaction stabilizes multipotent progenitor cap cells during mammary gland morphogenesis. Dev. Cell 4: 371-382.
4. Hinck, L. 2003. Functional disruption of the netrin-1 guidance cue leads to disruption in mammary gland development and increased tumor incidence. Storming Media. E-published.
5. Jackson-Fisher, A.J., et al. 2004. ErbB-2 is required for ductal morphogenesis of the mammary gland. Proc. Natl. Acad. Sci. USA 49: 17138-17143.
6. Krengel, S., et al. 2004. Cadherin expression pattern in melanocytic tumors more likely depends on the melanocyte environment than on tumor cell progression. J. Cutan. Pathol. 31: 1-7.
7. Wu, J.C., et al. 2008. JNK signaling pathway is required for βFGF-mediated surface cadherin downregulation on HUVEC. Exp. Cell Res. 314: 421-429.

RESEARCH USE

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