SANTA CRUZ BIOTECHNOLOGY, INC.

P-cadherin (H-105): sc-7893

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 (H-105) is a rabbit polyclonal antibody raised against amino acids 550-654 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.

APPLICATIONS

P-cadherin (H-105) 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 (H-105) is also recommended for detection of P-cadherin in additional species, including equine.

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, PC-3 cell lysate: sc-2220 or mouse placenta extract: sc-364247.

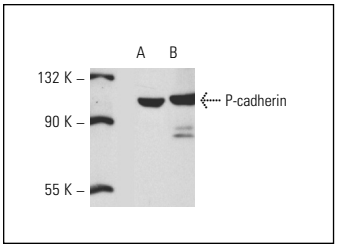
STORAGE

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

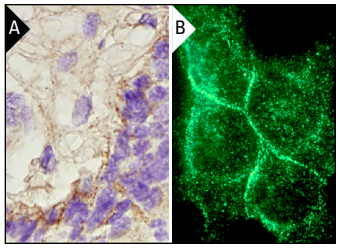
RESEARCH USE

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

DATA



P-cadherin (H-105): sc-7893. Western blot analysis of P-cadherin expression in F9 (**A**) whole cell lysate and mouse placenta (**B**) extract.



P-cadherin (H-105): sc-7893. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human placenta (**A**). Immunofluorescence staining of methanol-fixed JAR cells showing membrane localization (**B**).

SELECT PRODUCT CITATIONS

1. Liu, Y., et al. 2000. EDG-1, the G protein-coupled receptor for sphingosine-1-phosphate, is essential for vascular maturation. J. Clin. Invest. 106: 951-961.
2. Taddei, M.L., et al. 2002. β-catenin interacts with low-molecular-weight protein tyrosine phosphatase leading to cadherin-mediated cell-cell adhesion increase. Cancer Res. 62: 6489-6499.
3. Hardy, R.G., et al. 2002. Aberrant P-cadherin expression is an early event in hyperplastic and dysplastic transformation in the colon. Gut 50: 513-519.
4. Pospechova, K., et al. 2007. Changes in the expression of P-cadherin in the normal, cryptorchid and busulphan-treated rat testis. Int. J. Androl. 30: 430-438.
5. Corsino, P., et al. 2007. Tumors initiated by constitutive Cdk2 activation exhibit transforming growth factor β resistance and acquire paracrine mitogenic stimulation during progression. Cancer Res. 67: 3135-3144.
6. Corsino, P.E., et al. 2008. Mammary tumors initiated by constitutive Cdk2 activation contain an invasive basal-like component. Neoplasia 10: 1240-1252.
7. Tamiya, S., et al. 2010. Epithelial-mesenchymal transition and proliferation of retinal pigment epithelial cells initiated upon loss of cell-cell contact. Invest. Ophthalmol. Vis. Sci. 51: 2755-2763.