SANTA CRUZ BIOTECHNOLOGY, INC.

pan-cadherin (H-300): sc-10733

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/P cadherin and cadherin-5.

SOURCE

pan-cadherin (H-300) is a rabbit polyclonal antibody raised against amino acids 530-829 mapping at the C-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.

STORAGE

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

APPLICATIONS

pan-cadherin (H-300) is recommended for detection of P-cadherin, N-cadherin, E-cadherin, K-cadherin, M-cadherin, and R-cadherin of mouse, rat, human and *Xenopus laevis* 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).

Molecular Weight of pan-cadherin: 120 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, F9 cell lysate: sc-2245 or P-cadherin (h2): 293T Lysate: sc-177672.

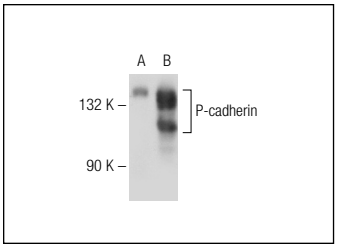
RECOMMENDED SECONDARY REAGENTS

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.

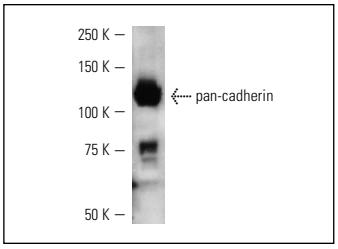
RESEARCH USE

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

DATA



pan-cadherin (H-300): sc-10733. 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.



pan-cadherin (H-300): sc-10733. Western blot analysis of cadherin expression in F9 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Forster, C., et al. 2002. Involvement of estrogen receptor β in terminal differentiation of mammary gland epithelium. Proc. Natl. Acad. Sci. USA 99: 15578-15583.
2. Talhouk, R.S., et al. 2008. Heterocellular interaction enhances recruitment of α and β-catenins and ZO-2 into functional gap-junction complexes and induces gap junction-dependant differentiation of mammary epithelial cells. Exp. Cell Res. 314: 3275-3291.
3. Tong, W.Y., et al. 2010. Biochemical characterization of the cell-biomaterial interface by quantitative proteomics. Mol. Cell. Proteomics 9: 2089-2098.
4. Shoji, Y., et al. 2011. The CD40-CD154 interaction would correlate with proliferation and immune escape in pancreatic ductal adenocarcinoma. J. Surg. Oncol. 103: 230-238.
5. Wang, H.C., et al. 2015. Extra-nuclear signaling pathway involved in progesterone-induced up-regulations of $p21^{cip1}$ and $p27^{kip1}$ in male rat aortic smooth muscle cells. PLoS ONE 10: e0125903.

PROTOCOLS

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