SANTA CRUZ BIOTECHNOLOGY, INC.

cadherin-24 (C-13): sc-242302

BACKGROUND

The cadherins are a family of Ca^{2+}-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of structure and morphogenesis. Cadherins each contain a large extracellular domain at the N-terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. Cadherin-24 is a 819 amino acid single-pass type I membrane protein that shares 57% sequence similarity with cadherin-11, a cadherin that is expressed in breast cancer cell lines and osteobalsts. Through association with α E-catenin, β-catenin and p120, cadherin-24 mediates strong cell-cell adhesion. There are three isoforms of cadherin-24 that are produced as a result of alternative splicing events.

REFERENCES

1. Gumbiner, B.M. and McCrea, P.D. 1993. Catenins as mediators of the cytoplasmic functions of cadherins. J. Cell Sci. Suppl. 17: 155-158.
2. Kemler, R. 1993. From cadherins to catenins: cytoplasmic protein interactions and regulation of cell adhesion. Trends Genet. 9: 317-321.
3. Aberle, H., Schwartz, H. and Kemler, R. 1996. Cadherin-catenin complex: protein interactions and their implications for cadherin function. J. Cell. Biochem. 61: 514-523.
4. Gottardi, C.J. and Gumbiner, B.M. 2001. Adhesion signaling: how β-catenin interacts with its partners. Curr. Biol. 11: R792-R794.
5. Katafiasz, B.J., Nieman, M.T., Wheelock, M.J. and Johnson, K.R. 2003. Characterization of cadherin-24, a novel alternatively spliced type II cadherin. J. Biol. Chem. 278: 27513-27519.
6. Gooding, J.M., Yap, K.L. and Ikura, M. 2004. The cadherin-catenin complex as a focal point of cell adhesion and signalling: new insights from three-dimensional structures. Bioessays 26: 497-511.

CHROMOSOMAL LOCATION

Genetic locus: CDH24 (human) mapping to 14q11.2; Cdh24 (mouse) mapping to 14 C3.

SOURCE

cadherin-24 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of cadherin-24 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-242302 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

cadherin-24 (C-13) is recommended for detection of cadherin-24 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for cadherin-24 siRNA (h): sc-92216, cadherin-24 siRNA (m): sc-141974, cadherin-24 shRNA Plasmid (h): sc-92216-SH, cadherin-24 shRNA Plasmid (m): sc-141974-SH, cadherin-24 shRNA (h) Lentiviral Particles: sc-92216-V and cadherin-24 shRNA (m) Lentiviral Particles: sc-141974-V.

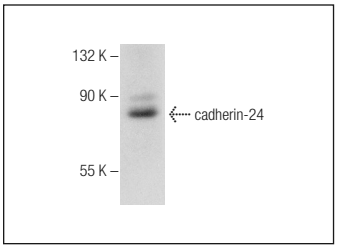
Molecular Weight of cadherin-24 isoforms: 88/84/42 kDa.

Positive Controls: Mouse brain extract: sc-2253.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



cadherin-24 (C-13): sc-242302. Western blot analysis of cadherin-24 expression in mouse brain tissue extract.

RESEARCH USE

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

PROTOCOLS

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