

cadherin-22 (S-16): sc-85462

BACKGROUND

The cadherins are a family of Ca²⁺-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-22, also known as CDH22 or PB-cadherin (pituitary and brain cadherin), is an 828 amino acid single-pass type I membrane protein that, characteristic of cadherin proteins, contains 5 cadherin domains. Expressed predominately in brain, cadherin-22 functions as a Ca²⁺-dependent cell adhesion protein that is thought to play an important role in tissue formation and morphogenesis, specifically in neural cells during the development and maintenance of brain tissue.

REFERENCES

1. Sugimoto, K., Honda, S., Yamamoto, T., Ueki, T., Monden, M., Kaji, A., Matsumoto, K. and Nakamura, T. 1996. Molecular cloning and characterization of a newly identified member of the cadherin family, PB-cadherin. *J. Biol. Chem.* 271: 11548-11556.
2. Kremmidiotis, G., Baker, E., Crawford, J., Eyre, H.J., Nahmias, J. and Callen, D.F. 1998. Localization of human cadherin genes to chromosome regions exhibiting cancer-related loss of heterozygosity. *Genomics* 49: 467-471.
3. Kitajima, K., Koshimizu, U. and Nakamura, T. 1999. Expression of a novel type of classic cadherin, PB-cadherin in developing brain and limb buds. *Dev. Dyn.* 215: 206-214.
4. Wu, J., Jester, W.F., Laslett, A.L., Meinhardt, A. and Orth, J.M. 2003. Expression of a novel factor, short-type PB-cadherin, in Sertoli cells and spermatogenic stem cells of the neonatal rat testis. *J. Endocrinol.* 176: 381-391.

CHROMOSOMAL LOCATION

Genetic locus: CDH22 (human) mapping to 20q13.12; Cdh22 (mouse) mapping to 2 H3.

SOURCE

cadherin-22 (S-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of cadherin-22 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85462 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-22 (S-16) is recommended for detection of cadherin-22 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); non cross-reactive with other cadherin family members.

cadherin-22 (S-16) is also recommended for detection of cadherin-22 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for cadherin-22 siRNA (h): sc-72775, cadherin-22 siRNA (m): sc-141973, cadherin-22 shRNA Plasmid (h): sc-72775-SH, cadherin-22 shRNA Plasmid (m): sc-141973-SH, cadherin-22 shRNA (h) Lentiviral Particles: sc-72775-V and cadherin-22 shRNA (m) Lentiviral Particles: sc-141973-V.

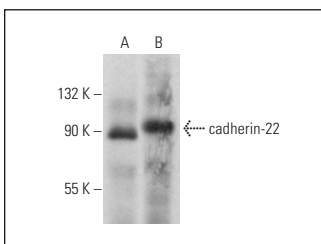
Molecular Weight of cadherin-22: 89 kDa.

Positive Controls: mouse heart extract: sc-2254, mouse kidney extract: sc-2255 or Hep G2 cell lysate: sc-2227.

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.

DATA



cadherin-22 (S-16): sc-85462. Western blot analysis of cadherin-22 expression in mouse heart (A) and mouse kidney (B) tissue extracts.

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.