SANTA CRUZ BIOTECHNOLOGY, INC.

cadherin-8 (C-18): sc-6461

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The cadherins are a family of Ca^{2+}-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. Cadherins each contain a large extracellular domain at the amino terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. The relatively short carboxy terminal, intracellular domain interacts with a variety of cytoplasmic proteins, including β-catenin, to regulate cadherin function. cadherin-8 expression has been seen in mouse thymus tissue as well as in specific subdivisions of the developing central nervous system. It plays a potential role in brain morphology.

REFERENCES

1. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. Development 102: 639-655.
2. Hatta, M., Miyatani, S., Copeland, N.G., Gilbert, D.J., Jenkins, N.A. and Takeichi, M. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. Nucleic Acids Res. 19: 4437-4441.
3. Koch, P.J. and Franke, W.W. 1994. Desmosomal cadherins: another growing multigene family of adhesion molecules. Curr. Opin. Cell Biol. 6: 682-687.
4. Ranscht, B. 1994. Cadherins and catenins: interactions and functions in embryonic development. Curr. Opin. Cell Biol. 6: 740-746.
5. Hinck, L., Nathke, I.S., Papkoff, J. and Nelson, W.J. 1994. Dynamics of cadherin/catenin complex formation: novel protein interactions and pathways of complex assembly. J. Cell Biol. 125: 1327-1340.
6. Ayalon, O., Sabanai, H., Lampugnani, M.G., Dejana, E. and Geiger, B. 1994. Spatial and temporal relationships between cadherins and PECAM-1 in cell-cell junctions of human endothelial cells. J. Cell Biol. 126: 247-258.
7. Takeichi, M. 1995. Morphogenetic roles of classic cadherins. Curr. Opin. Cell Biol. 7: 619-627.
8. Korematsu, K. and Redies, C. 1997. Restricted expression of cadherin-8 in segmental and functional subdivisions of the embryonic mouse brain. Dev. Dyn. 208: 178-189.

CHROMOSOMAL LOCATION

Genetic locus: CDH8 (human) mapping to 16q21; Cdh8 (mouse) mapping to 8 D1.

SOURCE

cadherin-8 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of cadherin-8 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-6461 PE, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cadherin-8 (C-18) is recommended for detection of precursor and mature cadherin-8 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).

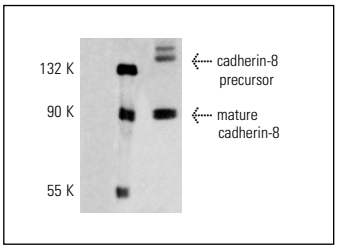
cadherin-8 (C-18) is also recommended for detection of precursor and mature cadherin-8 in additional species, including equine and avian.

Suitable for use as control antibody for cadherin-8 siRNA (h): sc-29874, cadherin-8 siRNA (m): sc-29875, cadherin-8 shRNA Plasmid (h): sc-29874-SH, cadherin-8 shRNA Plasmid (m): sc-29875-SH, cadherin-8 shRNA (h) Lentiviral Particles: sc-29874-V and cadherin-8 shRNA (m) Lentiviral Particles: sc-29875-V.

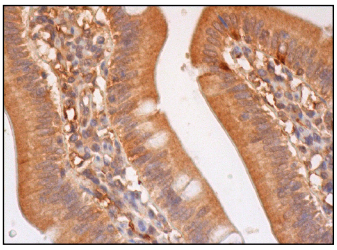
Molecular Weight of cadherin-8: 90/140 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or Y79 nuclear extract: sc-2126.

DATA



cadherin-8 (C-18): sc-6461. Western blot analysis of cadherin-8 expression in Y79 whole cell lysate showing both precursor and mature forms.



cadherin-8 (C-18): sc-6461. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Gil, O.D., Needleman, L. and Huntley, G.W. 2002. Developmental patterns of cadherin expression and localization in relation to compartmentalized thalamocortical terminations in rat barrel cortex. J. Comp. Neurol. 453: 372-388.

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.

PROTOCOLS

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