DCHS1 (N-12): sc-109252

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 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. DCHS1 (dachsous 1), also known as CDH19, CDH25, FIB1, KIAA1773 or PCDH16, is a 3,298 amino acid single-pass type I membrane protein that contains 27 cadherin domains and belongs to the cadherin superfamily. Expressed specifically in fibroblasts, DCHS1 functions as a Ca^{2+}-dependent cell-cell (specifically fibroblast-fibroblast) adhesion protein that may be involved in wound healing. The gene encoding DCHS1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES

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2. Matsuyoshi, N., et al. 1997. Identification of novel cadherins expressed in human melanoma cells. J. Invest. Dermatol. 108: 908-913.

3. Nollet, F., et al. 2000. Phylogenetic analysis of the cadherin superfamily allows identification of six major subfamilies besides several solitary members. J. Mol. Biol. 299: 551-572.

4. Nakajima, D., et al. 2001. Identification of three novel non-classical cadherin genes through comprehensive analysis of large cDNAs. Brain Res. Mol. Brain Res. 94: 85-95.

5. Junghans, D., et al. 2005. Mammalian cadherins and protocadherins: about cell death, synapses and processing. Curr. Opin. Cell Biol. 17: 446-452.

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CHROMOSOMAL LOCATION

Genetic locus: DCHS1 (human) mapping to 11p15.4.

SOURCE

DCHS1 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of DCHS1 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-109252 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

DCHS1 (N-12) is recommended for detection of DCHS1 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 family member DCHS2.

DCHS1 (N-12) is also recommended for detection of DCHS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DCHS1 siRNA (h): sc-96462, DCHS1 shRNA Plasmid (h): sc-96462-SH and DCHS1 shRNA (h) Lentiviral Particles: sc-96462-V.

Molecular Weight of DCHS1: 346 kDa.

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) 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.

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.