

cadherin-20 (P-15): sc-68147

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-20, also known as protocadherin γ B4, is a member of the protocadherin γ gene cluster. Expressed primarily in fibroblasts, cadherin-20 plays a critical role in neuronal cell-cell connections in the brain. Through its ability to mediate cell-cell adhesion, cadherin-20 is thought to help the body respond to injury by regulating post-traumatic wound healing.

REFERENCES

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2. Wang, X., et al. 2002. Molecular mechanisms governing PCDH- γ gene expression: evidence for a multiple promoter and *cis*-alternative splicing model. *Genes Dev.* 16: 1890-1905.
3. Moore, R., et al. 2004. Involvement of cadherins 7 and 20 in mouse embryogenesis and melanocyte transformation. *Oncogene* 23: 6726-6735.
4. Weiner, J.A., et al. 2005. γ protocadherins are required for synaptic development in the spinal cord. *Proc. Natl. Acad. Sci. USA* 102: 8-14.
5. Junghans, D., et al. 2005. Mammalian cadherins and protocadherins: about cell death, synapses and processing. *Curr. Opin. Cell Biol.* 17: 446-452.
6. Reiss, K., et al. 2006. Regulated ADAM10-dependent ectodomain shedding of γ -protocadherin C3 modulates cell-cell adhesion. *J. Biol. Chem.* 281: 21735-21744.
7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
8. Bonn, S., et al. 2007. Combinatorial expression of α - and γ -protocadherins alters their presenilin-dependent processing. *Mol. Cell. Biol.* 27: 4121-4132.

CHROMOSOMAL LOCATION

Genetic locus: *Pcdhgb4* (mouse) mapping to 18 B3.

SOURCE

cadherin-20 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of cadherin-20 of mouse origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68147 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cadherin-20 (P-15) is recommended for detection of cadherin-20 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

cadherin-20 (P-15) is also recommended for detection of cadherin-20 in additional species, including bovine.

Suitable for use as control antibody for cadherin-20 siRNA (m): sc-62053, cadherin-20 shRNA Plasmid (m): sc-62053-SH and cadherin-20 shRNA (m) Lentiviral Particles: sc-62053-V.

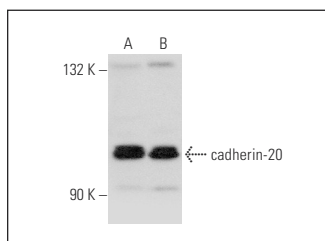
Molecular Weight of cadherin-20: 100 kDa.

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-20 (P-15): sc-68147. Western blot analysis of cadherin-20 expression in mouse brain (A) and rat brain (B) tissue extracts.

RESEARCH USE

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