

# cadherin-7 (D-18): sc-68151

## BACKGROUND

The cadherins are a family of Ca<sup>2+</sup>-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-7 is a member of the atypical type II cadherin family that lacks the HAV cell recognition sequence found in type I cadherins. Although the absence of an HAV sequence decreases cell adhesion specificity, cadherin-7 contributes to cell organization by mediating homophilic cell adhesion in the brain, testis and prostate.

## REFERENCES

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2. Faulkner-Jones, B.E., et al. 1999. Cloning and expression of mouse cadherin-7, a type-II cadherin isolated from the developing eye. *Mol. Cell. Neurosci.* 14: 1-16.
3. Kools, P., et al. 2000. Characterization of three novel human cadherin genes (CDH7, CDH19, and CDH20) clustered on chromosome 18q22-q23 and with high homology to chicken cadherin-7. *Genomics* 68: 283-295.
4. Kawano, R., et al. 2002. Identification and characterization of a soluble cadherin-7 isoform produced by alternative splicing. *J. Biol. Chem.* 277: 47679-47685.
5. Moore, R., et al. 2004. Involvement of cadherins 7 and 20 in mouse embryogenesis and melanocyte transformation. *Oncogene* 23: 6726-6735.
6. Chu, Y.S., et al. 2006. Prototypical type I E-cadherin and type II cadherin-7 mediate very distinct adhesiveness through their extracellular domains. *J. Biol. Chem.* 281: 2901-2910.
7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
8. Luo, J., et al. 2006. Regionalized cadherin-7 expression by radial glia is regulated by Shh and Pax-7 during chicken spinal cord development. *Neuroscience* 142: 1133-1143.

## CHROMOSOMAL LOCATION

Genetic locus: CDH7 (human) mapping to 18q22.1; Cdh7 (mouse) mapping to 1 E2.1.

## SOURCE

cadherin-7 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of cadherin-7 of human origin.

## STORAGE

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

## 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-68151 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

cadherin-7 (D-18) is recommended for detection of cadherin-7 of mouse, rat and human 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).

cadherin-7 (D-18) is also recommended for detection of cadherin-7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for cadherin-7 siRNA (h): sc-62054, cadherin-7 siRNA (m): sc-62055, cadherin-7 shRNA Plasmid (h): sc-62054-SH, cadherin-7 shRNA Plasmid (m): sc-62055-SH, cadherin-7 shRNA (h) Lentiviral Particles: sc-62054-V and cadherin-7 shRNA (m) Lentiviral Particles: sc-62055-V.

Molecular Weight of cadherin-7: 87 kDa.

Positive Controls: DU 145 cell lysate: sc-2268.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.