

R-cadherin (H-66): sc-7941

BACKGROUND

The cadherins are a family of Ca⁺⁺-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. R-cadherin (for retinal-cadherin, also designated cadherin-4), which was first identified in the retina of chicken, has been shown to be involved in the development of striated muscle and potentially epithelia in addition to its involvement in retinal development.

REFERENCES

1. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development* 102: 639-655.
2. Hatta, M., et al. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. *Nucleic Acids Res.* 19: 4437-4441.

CHROMOSOMAL LOCATION

Genetic locus: CDH4 (human) mapping to 20q13.33; Cdh4 (mouse) mapping to 2 H4.

SOURCE

R-cadherin (H-66) is a rabbit polyclonal antibody raised against amino acids 460-525 mapping within an extracellular domain of R-cadherin of human origin.

PRODUCT

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

APPLICATIONS

R-cadherin (H-66) is recommended for detection of R-cadherin of mouse, rat and human origin 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), 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).

R-cadherin (H-66) is also recommended for detection of R-cadherin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for R-cadherin siRNA (h): sc-37039, R-cadherin siRNA (m): sc-37040, R-cadherin shRNA Plasmid (h): sc-37039-SH, R-cadherin shRNA Plasmid (m): sc-37040-SH, R-cadherin shRNA (h) Lentiviral Particles: sc-37039-V and R-cadherin shRNA (m) Lentiviral Particles: sc-37040-V.

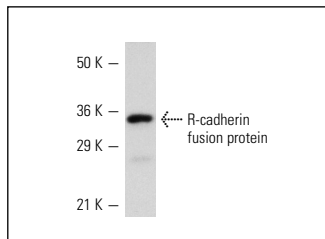
Molecular Weight of R-cadherin: 100 kDa.

Positive Controls: rat brain extract: sc-2392.

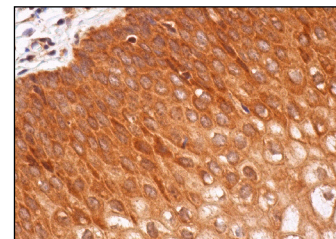
STORAGE

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

DATA



R-cadherin (H-66): sc-7941. Western blot analysis of human recombinant R-cadherin fusion protein.



R-cadherin (H-66): sc-7941. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vagina tissue showing cytoplasmic and membrane staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Estivill-Torrús, G., et al. 2001. The transcription factor Pax 6 is required for development of the diencephalic dorsal midline secretory radial glia that form the subcommis-sural organ. *Mech. Dev.* 109: 215-224.
2. Dorrell, M.I., et al. 2002. Retinal vascular development is mediated by endothelial filopodia, a preexisting astrocytic template and specific R-cadherin adhesion. *Invest. Ophthalmol. Vis. Sci.* 43: 3500-3510.
3. Gliem, M., et al. 2006. Expression of classical cadherins in the cerebellar anlage: quantitative and functional aspects. *Mol. Cell. Neurosci.* 33: 447-458.
4. Rahimov, F., et al. 2011. Gene expression profiling of skeletal muscles treated with a soluble activin type IIB receptor. *Physiol. Genomics* 43: 398-407.

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.


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Try **R-cadherin (D-9): sc-398306** or **R-cadherin (48): sc-136048**, our highly recommended monoclonal alternatives to R-cadherin (H-66).