

# R-cadherin (48): sc-136048

## 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 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  $\beta$ -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.
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., et al. 1994. Dynamics of cadherin/catenin complex formation: novel protein interactions and pathways of complex assembly. *J. Cell Biol.* 125: 1327-1340.
6. Ayalon, O., et al. 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. Rosenberg, P., et al. 1997. A potential role of R-cadherin in striated muscle formation. *Dev. Biol.* 187: 55-70.

## CHROMOSOMAL LOCATION

Genetic locus: Cdh4 (mouse) mapping to 2 H4.

## SOURCE

R-cadherin (48) is a mouse monoclonal antibody raised against amino acids 22-201 of R-cadherin of mouse origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>1</sub> in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

## STORAGE

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

## APPLICATIONS

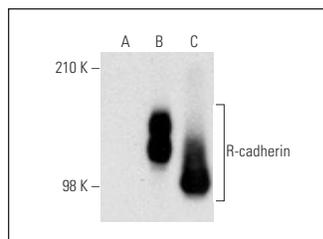
R-cadherin (48) is recommended for detection of R-cadherin of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

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

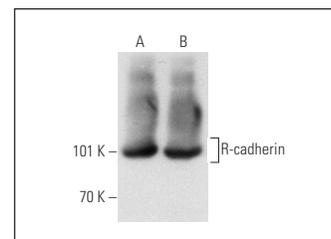
Molecular Weight of R-cadherin: 100 kDa.

Positive Controls: R-cadherin (m): 293 Lysate: sc-179392, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

## DATA



R-cadherin (48): sc-136048. Western blot analysis of R-cadherin expression in non-transfected: sc-110760 (A) and mouse R-cadherin transfected: sc-179392 (B) 293 whole cell lysates and mouse brain tissue extract (C).



R-cadherin (48): sc-136048. Western blot analysis of R-cadherin expression in mouse brain (A) and rat brain (B) tissue extracts.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **N/R-cadherin (H-4): sc-271386** for N/R-cadherin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.