SANTA CRUZ BIOTECHNOLOGY, INC.

N/R-cadherin (N-19): sc-1502

BACKGROUND

Cadherins comprise a family of Ca^{2+}-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. The classical cadherins, E-, N- and P-cadherin, consist of large extracellular domains characterized by a series of five homologous NH_2-terminal repeats. The most distal of these cadherins is thought to be responsible for binding specificity, transmembrane domains and carboxy-terminal intracellular domains. The relatively short intracellular domains interact with a variety of cytoplasmic proteins, such as β-catenin, to regulate cadherin function. Members of this family of adhesion proteins include rat cadherin K (and its human homolog, cadherin-6), R-cadherin, B-cadherin, E/P-cadherin and cadherin-5.

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: CDH2 (human) mapping to 18q12.1, CDH4 (human) mapping to 20q13.3; Cdh2 (mouse) mapping to 18 A1, Cdh4 (mouse) mapping to 2 H4.

SOURCE

N/R-cadherin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of N-cadherin 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-1502 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

N/R-cadherin (N-19) is recommended for detection of N-cadherin and R-cadherin of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

N/R-cadherin (N-19) is also recommended for detection of N-cadherin and R-cadherin in additional species, including equine, canine, bovine and avian.

Molecular Weight of N/R-cadherin: 130 kDa.

Positive Controls: N-cadherin (m): 293T Lysate: sc-121905, A-10 cell lysate: sc-3806 or mouse brain extract: sc-2253.

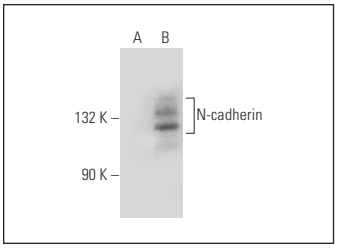
STORAGE

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

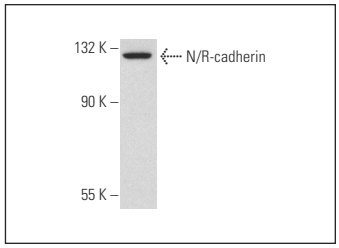
RESEARCH USE

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

DATA



N/R-cadherin (N-19): sc-1502. Western blot analysis of N-cadherin expression in non-transfected: sc-117752 (**A**) and mouse N-cadherin transfected: sc-121905 (**B**) 293T whole cell lysates.



N/R-cadherin (N-19): sc-1502. Western blot analysis of N/R-cadherin expression in A-10 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Philippova, M.P., et al. 1998. T-cadherin and signal-transducing molecules co-localize in caveolin-rich membrane domains of vascular smooth muscle cells. FEBS Lett. 429: 207-210.
2. Forster, C., et al. 2002. Involvement of estrogen receptor β in terminal differentiation of mammary gland epithelium. Proc. Natl. Acad. Sci. USA 99: 15578-15583.
3. Beardsley, A., et al. 2003. Characterization of normal spermiation and spermiation failure induced by hormone suppression in adult rats. Biol. Reprod. 68: 1299-1307.
4. Castro, C.H., et al. 2004. Targeted expression of a dominant-negative N-cadherin *in vivo* delays peak bone mass and increases adipogenesis. J. Cell Sci. 117: 2853-2864.
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6. Pastila, R., et al. 2005. Ultraviolet A exposure might increase metastasis of mouse melanoma: a pilot study. Photodermatol. Photoimmunol. Photomed. 21: 183-190.
7. Yoshida, M., et al. 2010. Weaving hypothesis of cardiomyocyte sarcomeres: discovery of periodic broadening and narrowing of intercalated disk during volume-load change. Am. J. Pathol. 176: 660-678.
8. Boshnjaku, V., et al. 2012. Nuclear localization of folate receptor α: a new role as a transcription factor. Sci. Rep. 2: 980.
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