SANTA CRUZ BIOTECHNOLOGY, INC.

α N-catenin (C-19): sc-1498

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

α-catenins are a group of proteins associated with cadherin cell-cell adhesion molecules, and play indispensable roles in the function of the cadherins. α N-catenin is a linker between cadherin adhesion receptors and the actin cytoskeleton and is essential for stabilizing dendritic spines in rodent hippocampal neurons in culture. A deletion in this protein causes cerebellar and hippocampal lamination defects and impaired startle reaction. α E- and α N-catenin appeare to co-localize in cell bodies of neurons in dorsal root ganglia. In mice, α N-catenin was found to occur at the roof plate of the mesencephalon and diencephalon, coinciding with Wnt-1 expression.

CHROMOSOMAL LOCATION

Genetic locus: CTNNA2 (human) mapping to 2p12; Ctnna2 (mouse) mapping to 6 C3.

SOURCE

α N-catenin (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of α N-catenin 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-1498 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

α N-catenin (C-19) is recommended for detection of α N-catenin of mouse, rat and human 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).

α N-catenin (C-19) is also recommended for detection of α N-catenin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for α N-catenin siRNA (h): sc-43019, α N-catenin siRNA (m): sc-43508, α N-catenin shRNA Plasmid (h): sc-43019-SH, α N-catenin shRNA Plasmid (m): sc-43508-SH, α N-catenin shRNA (h) Lentiviral Particles: sc-43019-V and α N-catenin shRNA (m) Lentiviral Particles: sc-43508-V.

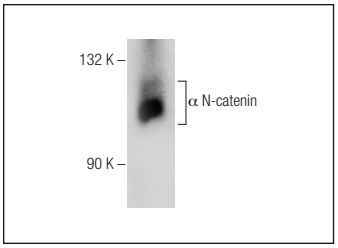
Molecular Weight of α N-catenin: 102 kDa.

Positive Controls: Mouse brain extract: sc-2253 or T98G cell lysate: sc-2294.

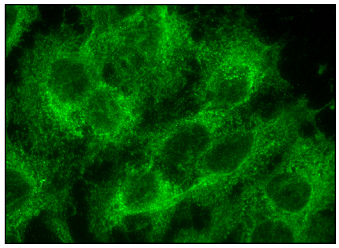
RECOMMENDED SECONDARY REAGENTS

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



α N-catenin (C-19): sc-1498. Western blot analysis of α N-catenin expression in mouse brain tissue extract.



α N-catenin (C-19): sc-1498. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Burke, J.M., et al. 1999. Expression of E-cadherin by human retinal pigment epithelium: delayed expression *in vitro*. Invest. Ophthalmol. Vis. Sci. 40: 2963-2970.
2. Knudsen, K.A., et al. 2000. Cadherin-mediated cell-cell interactions. Methods Mol. Biol. 137: 409-440.
3. Abe, K., et al. 2004. Stability of dendritic spines and synaptic contacts is controlled by α N-catenin. Nat. Neurosci. 7: 357-363.
4. Schweneker, M., et al. 2004. The HIV-1 co-receptor CCR5 binds to α-catenin, a component of the cellular cytoskeleton. Biochem. Biophys. Res. Commun. 325: 751-757.
5. Uemura, M., et al. 2006. α N-catenin deficiency causes defects in axon migration and nuclear organization in restricted regions of the mouse brain. Dev. Dyn. 235: 2559-2566.
6. Mexal, S., et al. 2008. Regulation of a novel α N-catenin splice variant in schizophrenic smokers. Am. J. Med. Genet. B Neuropsychiatr. Genet. 147B: 759-768.
7. Garufi, A., et al. 2012. Targeting COX-2/PGE(2) pathway in HIPK2 knock-down cancer cells: impact on dendritic cell maturation. PLoS ONE 7: e48342.

PROTOCOLS

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