

α T-catenin (N-14): sc-69150

BACKGROUND

The catenins (α , β , γ and δ) are ubiquitously expressed, cytoplasmic proteins that associate with E-cadherin at cellular junctions. Catenin/cadherin complexes play an important role in mediating cellular adhesion. α T-catenin, also referred to as VR22, is a 895 amino acid protein that is most abundantly expressed in cardiomyocytes and in the peritubular myoid cells of the testis. α T-catenin binds to α E-catenin as well as to β -catenin, and it functions to inhibit Wnt signaling. CTNNA3, the gene that encodes for α T-catenin, is located on chromosome 10, and mutations in this gene show a strong correlation to late-onset Alzheimer's disease (LOAD) as well as to dilated cardiomyopathy.

REFERENCES

1. Ertekin-Taner, N., et al. 2000. Linkage of plasma A β 42 to a quantitative locus on chromosome 10 in late-onset Alzheimer's disease pedigrees. *Science* 290: 2303-2304.
2. Janssens, B., et al. 2001 α T-catenin: A novel tissue-specific β -catenin-binding protein mediating strong cell-cell adhesion. *J. Cell Sci.* 114: 3177-3188.
3. Ertekin-Taner, N., et al. 2003. Fine mapping of the α T-catenin gene to a quantitative trait locus on chromosome 10 in late-onset Alzheimer's disease pedigrees. *Hum. Mol. Genet.* 12: 3133-3143.
4. Janssens, B., et al. 2003. Assessment of the CTNNA3 gene encoding human α T-catenin regarding its involvement in dilated cardiomyopathy. *Hum. Genet.* 112: 227-236.
5. Blomqvist, M.E., et al. 2004. Genetic variation in CTNNA3 encoding α -3 catenin and Alzheimer's disease. *Neurosci. Lett.* 358: 220-222.
6. Busby, V., et al. 2004. α T-catenin is expressed in human brain and interacts with the Wnt signaling pathway but is not responsible for linkage to chromosome 10 in Alzheimer's disease. *Neuromolecular Med.* 5: 133-146.

CHROMOSOMAL LOCATION

Genetic locus: CTNNA3 (human) mapping to 10q21.3; Ctnna3 (mouse) mapping to 10 B4.

SOURCE

α T-catenin (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of α T-catenin 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.

Blocking peptide available for competition studies, sc-69150 P, (100 μ g 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.

APPLICATIONS

α T-catenin (N-14) is recommended for detection of α T-catenin of mouse, rat and human origin by 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

α T-catenin (N-14) is also recommended for detection of α T-catenin in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for α T-catenin siRNA (h): sc-61904, α T-catenin siRNA (m): sc-61905, α T-catenin shRNA Plasmid (h): sc-61904-SH, α T-catenin shRNA Plasmid (m): sc-61905-SH, α T-catenin shRNA (h) Lentiviral Particles: sc-61904-V and α T-catenin shRNA (m) Lentiviral Particles: sc-61905-V.

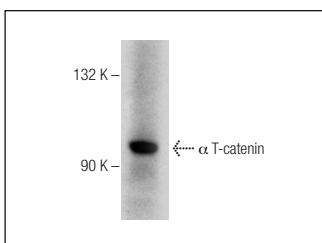
Molecular Weight of α T-catenin: 100 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HCT-8 cell lysate: sc-24675.

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 T-catenin (N-14): sc-69150. Western blot analysis of α T-catenin expression in HCT-8 whole cell lysate.

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.