SANTA CRUZ BIOTECHNOLOGY, INC.

α T-catenin (B-6): sc-398138

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 Aβ42 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 an 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.

SOURCE

α T-catenin (B-6) is a mouse monoclonal antibody raised against amino acids 61-125 mapping near the N-terminus of α T-catenin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

α T-catenin (B-6) is available conjugated to agarose (sc-398138 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398138 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398138 PE), fluorescein (sc-398138 FITC), Alexa Fluor® 488 (sc-398138 AF488), Alexa Fluor® 546 (sc-398138 AF546), Alexa Fluor® 594 (sc-398138 AF594) or Alexa Fluor® 647 (sc-398138 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398138 AF680) or Alexa Fluor® 790 (sc-398138 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

α T-catenin (B-6) is recommended for detection of α T-catenin of human origin by Western Blotting (starting dilution 1:100, 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).

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

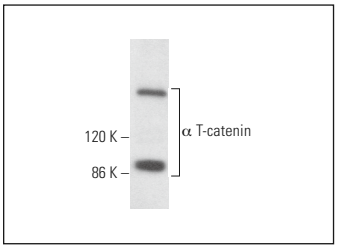
Molecular Weight of α T-catenin: 100 kDa.

Positive Controls: human heart extract: sc-363763 or BC_3H1 cell lysate: sc-2299.

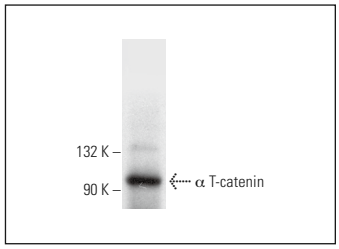
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



α T-catenin (B-6): sc-398138. Western blot analysis of α T-catenin expression in BC_3H1 whole cell lysate.



α T-catenin (B-6): sc-398138. Western blot analysis of α T-catenin expression in human heart tissue extract.

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.

PROTOCOLS

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

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