

α T-catenin (K-18): sc-69149

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. *Neuromol. Med.* 5: 133-146.
7. Martin, E.R., et al. 2005. Interaction between the α T-catenin gene (VR22) and APOE in Alzheimer's disease. *J. Med. Genet.* 42: 787-792.

CHROMOSOMAL LOCATION

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

SOURCE

α T-catenin (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-69149 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

α T-catenin (K-18) 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), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 (K-18) is also recommended for detection of α T-catenin in additional species, including canine and bovine.

Suitable for use as control antibody for α T-catenin siRNA (h): sc-61904, α T-catenin siRNA (m): sc-72806, α T-catenin shRNA Plasmid (h): sc-61904-SH, α T-catenin shRNA (m): sc-72806-SH, α T-catenin shRNA (h) Lentiviral Particles: sc-61904-V and α T-catenin shRNA (m) Lentiviral Particles: sc-72806-V.

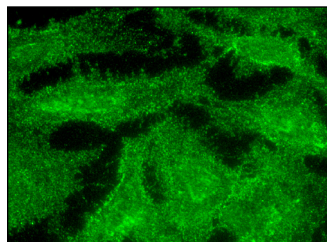
Molecular Weight of α T-catenin: 100 kDa.

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

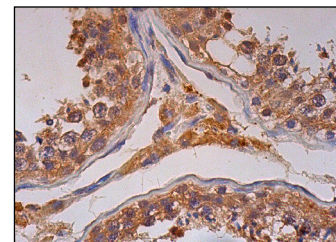
RECOMMENDED SECONDARY REAGENTS

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) 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. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



α T-catenin (K-18): sc-69149. Immunofluorescence staining of formalin-fixed HepG2 cells showing membrane localization.



α T-catenin (K-18): sc-69149. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

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.