SANTA CRUZ BIOTECHNOLOGY, INC.

TANC (N-14): sc-139179

BACKGROUND

TANC (tetratricopeptide repeat, ankyrin repeat and coiled-coil domain-containing protein), also known as TANC1, is a 1,861 amino acid postsynaptic cell membrane protein that contains eleven ANK repeats, three TPR repeats and belongs to the TANC family. Considered a scaffolding component in the postsynaptic density, TANC interacts with TNIK, SAPAP1, α-internexin, CaMKII, NMDAε2 and GluR-1. It is also thought that TANC interacts directly with SAP 97, PSD-95 and Homer. Upon stimulation by Rap 2, MINK1 and TNIK may phosphorylate TANC. The TANC gene encodes two alternatively spliced isoforms, contains approximately 264,025 bases and maps to human chromosome 2q24.2. Making up approximately 8% of the human genome, chromosome 2 consists of 237 million bases and encodes over 1,400 genes. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

REFERENCES

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3. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
4. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. Nat. Genet. 31: 79-83.
5. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
6. Suzuki, T., et al. 2005. A novel scaffold protein, TANC, possibly a rat homolog of *Drosophila* rolling pebbles (rols), forms a multiprotein complex with various postsynaptic density proteins. Eur. J. Neurosci. 21: 339-350.
7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611397. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: TANC1 (human) mapping to 2q24.2; Tanc1 (mouse) mapping to 2 C1.1.

SOURCE

TANC (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TANC 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-139179 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TANC (N-14) is recommended for detection of TANC 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with TANC2.

Suitable for use as control antibody for TANC siRNA (h): sc-94500, TANC siRNA (m): sc-154065, TANC shRNA Plasmid (h): sc-94500-SH, TANC shRNA Plasmid (m): sc-154065-SH, TANC shRNA (h) Lentiviral Particles: sc-94500-V and TANC shRNA (m) Lentiviral Particles: sc-154065-V.

Molecular Weight of TANC isoform: 202/191 kDa.

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.

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 or our catalog for detailed protocols and support products.