SANTA CRUZ BIOTECHNOLOGY, INC.

TANC (H-8): sc-514679

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 11 ANK repeats, 3 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

1. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
2. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
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.

CHROMOSOMAL LOCATION

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

SOURCE

TANC (H-8) is a mouse monoclonal antibody raised against amino acids 629-679 mapping within an internal region of TANC of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TANC (H-8) is available conjugated to agarose (sc-514679 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514679 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514679 PE), fluorescein (sc-514679 FITC), Alexa Fluor® 488 (sc-514679 AF488), Alexa Fluor® 546 (sc-514679 AF546), Alexa Fluor® 594 (sc-514679 AF594) or Alexa Fluor® 647 (sc-514679 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514679 AF680) or Alexa Fluor® 790 (sc-514679 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TANC (H-8) is recommended for detection of TANC of mouse, rat and 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 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.

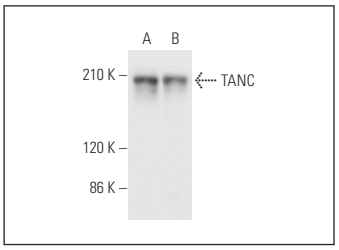
Molecular Weight of TANC isoform 1/2: 202/191 kDa.

Positive Controls: T98G cell lysate: sc-2294, Neuro-2A whole cell lysate: sc-364185 or SK-MEL-28 cell lysate: sc-2236.

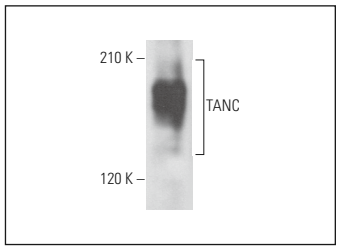
RECOMMENDED SUPPORT REAGENTS

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



TANC (H-8): sc-514679. Western blot analysis of TANC expression in T98G (**A**) and SK-MEL-28 (**B**) whole cell lysates.



TANC (H-8): sc-514679. Western blot analysis of TANC expression in Neuro-2A whole cell lysate.

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.