SANTA CRUZ BIOTECHNOLOGY, INC.

TSNAXIP1 (M-20): sc-165805

BACKGROUND

TSNAXIP1 (translin-associated factor X-interacting protein 1) is a 658 amino acid gene product believed to interact with TSNAX (translin-associated factor X). TSNAX, a translin family protein, is often found as a sumoylated perinuclear association factor. The TSNAX gene is located immediately upstream of DISC1 (Disrupted-in-Schizophrenia-1) and together are candidate genes in relation to psychiatric illness, as one transcript variation may result from intergenic splicing to encode a novel TSNAX-DISC1 fusion protein. The gene encoding TSNAXIP1 is located on chromosome 16 which encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, though through the CREBBP gene which encodes a critical CREB binding protein.

REFERENCES

1. Williams, J.M., Beck, T.F., Pearson, D.M., Proud, M.B., Cheung, S.W. and Scott, D.A. 2009. A 1q42 deletion involving DISC1, DISC2, and TSNAX in an autism spectrum disorder. Am. J. Med. Genet. A 149A: 1758-1762.
2. Lluis, M., Hoe, W., Schleit, J. and Robertus, J. 2010. Analysis of nucleic acid binding by a recombinant translin-trax complex. Biochem. Biophys. Res. Commun. 396: 709-713.
3. Jaendling, A. and McFarlane, R.J. 2010. Biological roles of translin and translin-associated factor-X: RNA metabolism comes to the fore. Biochem. J. 429: 225-234.
4. Schosser, A., Gaysina, D., Cohen-Woods, S., Chow, P.C., Martucci, L., Craddock, N., Farmer, A., Korszun, A., Gunasinghe, C., Gray, J., Jones, L., Tozzi, F., Perry, J., Muglia, P., Owen, M.J., Craig, I.W. and McGuffin, P. 2010. Association of DISC1 and TSNAX genes and affective disorders in the depression case-control (DeCC) and bipolar affective case-control (BACCS) studies. Mol. Psychiatry 15: 844-849.
5. Okuda, A., Kishi, T., Okochi, T., Ikeda, M., Kitajima, T., Tsunoka, T., Okumukura, T., Fukuo, Y., Kinoshita, Y., Kawashima, K., Yamanouchi, Y., Inada, T., Ozaki, N. and Iwata, N. 2010. Translin-associated factor X gene (TSNAX) may be associated with female major depressive disorder in the Japanese population. Neuromolecular Med. 12: 78-85.
6. Aisiku, O.R., Runnels, L.W. and Scarlata, S. 2010. Identification of a novel binding partner of phospholipase c 1: translin-associated factor X. PLoS ONE 5: e15001.
7. Kishi, T., Okochi, T., Kitajima, T., Ujike, H., Inada, T., Yamada, M., Uchimura, N., Sora, I., Iyo, M., Ozaki, N., Correll, C.U. and Iwata, N. 2011. Lack of association between translin-associated factor X gene (TSNAX) and methamphetamine dependence in the Japanese population. Prog. Neuropsychopharmacol. Biol. Psychiatry 35: 1618-1622.

CHROMOSOMAL LOCATION

Genetic locus: Tsnaxip1 (mouse) mapping to 8 D3.

SOURCE

TSNAXIP1 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TSNAXIP1 of mouse 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-165805 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TSNAXIP1 (M-20) is recommended for detection of TSNAXIP1 of mouse and rat 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).

Suitable for use as control antibody for TSNAXIP1 siRNA (m): sc-154722, TSNAXIP1 shRNA Plasmid (m): sc-154722-SH and TSNAXIP1 shRNA (m) Lentiviral Particles: sc-154722-V.

Molecular Weight of TSNAXIP1: 76 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.