SANTA CRUZ BIOTECHNOLOGY, INC.

DNTTIP2 (D-18): sc-242594

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DNTTIP2 (deoxynucleotidyltransferase terminal-interacting protein 2), also known as ERBP (estrogen receptor-binding protein), FCF2 or TdIF2 (terminal deoxynucleotidyltransferase-interacting factor 2), is a 756 amino acid nuclear protein. Widely expressed, with highest levels in testis, DNTTIP2 controls the transcriptional activity of TdT and ERα. DNTTIP2 forms a ternary complex with TdT and core histones. DNTTIP2 may also function as a chromatin remodeling protein. DNTTIP2 is encoded by a gene that maps to human chromosome 1, which is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. J. Exp. Med. 172: 263-272.
2. Soares-da-Silva, P. and Fernandes, M.H. 1992. Sodium-dependence and ouabain-sensitivity of the synthesis of dopamine in renal tissues of the rat. Br. J. Pharmacol. 105: 811-816.
3. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433.
4. Fujita, K., et al. 2003. Terminal deoxynucleotidyltransferase forms a ternary complex with a novel chromatin remodeling protein with 82 kDa and core histone. Genes Cells 8: 559-571.

CHROMOSOMAL LOCATION

Genetic locus: DNTTIP2 (human) mapping to 1p22.1.

SOURCE

DNTTIP2 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DNTTIP2 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-242594 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DNTTIP2 (D-18) is recommended for detection of DNTTIP2 of 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).

Suitable for use as control antibody for DNTTIP2 siRNA (h): sc-88170, DNTTIP2 shRNA Plasmid (h): sc-88170-SH and DNTTIP2 shRNA (h) Lentiviral Particles: sc-88170-V.

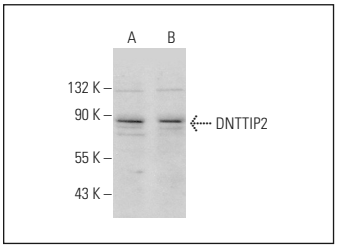
Molecular Weight of DNTTIP2: 85 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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.

DATA



DNTTIP2 (D-18): sc-242594. Western blot analysis of DNTTIP2 expression in Jurkat (**A**) and K-562 (**B**) whole cell lysates.

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.