

BTBD7 (D-18): sc-241937

BACKGROUND

The BTB (broad-complex, tramtrack and bric a brac) domain, also known as the POZ (poxvirus and zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C₂H₂-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. BTBD7 (BTB/POZ domain-containing protein 7), also known as FUP1 (function unknown protein-1), is a 1,132 amino acid protein involved in tumor formation and stimulation of cell proliferation. BTBD7 contains two BTB (POZ) domains and is implicated in the formation of branched organs such as salivary glands and lung. Existing as five alternatively spliced isoforms, the gene encoding BTBD7 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD).

REFERENCES

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- Avramopoulos, D., et al. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 132B: 9-13.
- Larner, A.J. and Doran, M. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. *J. Alzheimers Dis.* 17: 259-265.
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CHROMOSOMAL LOCATION

Genetic locus: BTBD7 (human) mapping to 14q32.12; Btd7 (mouse) mapping to 12 E.

SOURCE

BTBD7 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BTBD7 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-241937 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BTBD7 (D-18) is recommended for detection of BTBD7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other BTBD family members.

BTBD7 (D-18) is also recommended for detection of BTBD7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BTBD7 siRNA (h): sc-92326, BTBD7 siRNA (m): sc-141778, BTBD7 shRNA Plasmid (h): sc-92326-SH, BTBD7 shRNA Plasmid (m): sc-141778-SH, BTBD7 shRNA (h) Lentiviral Particles: sc-92326-V and BTBD7 shRNA (m) Lentiviral Particles: sc-141778-V.

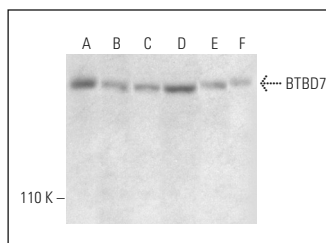
Molecular Weight of BTBD7: 126 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, Hep G2 cell lysate: sc-2227 or HL-60 whole cell lysate: sc-2209.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



BTBD7 (D-18): sc-241937. Western blot analysis of BTBD7 expression in U-87 MG (A), Hep G2 (B), THP-1 (C), Daudi (D), K-562 (E) and HL-60 (F) 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.