SANTA CRUZ BIOTECHNOLOGY, INC.

BTBD10 (B-1): sc-377183

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 C_2H_2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. BTBD10 (BTB (POZ) domain containing 10), also known as GMRP1, is a ubiquitously expressed nuclear protein found at highest levels in adult testis, brain and small intestine and weakly expressed in colon, lung, liver, kidney, spleen, pancreas, thymus, prostate, heart and ovary. Down-regulated in glioma, BTBD10 binds PP2A (protein phosphatase 2A) to inhibit dephosphorylation of Akts and is suggested to be a suppressor of cell death as well as an enhancer of cell growth. BTBD10 contains one BTB (POZ) domain and is encoded by a gene mapping to human chromosome 11p15.2.

CHROMOSOMAL LOCATION

Genetic locus: BTBD10 (human) mapping to 11p15.2; Btbd10 (mouse) mapping to 7 F1.

SOURCE

BTBD10 (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 89-101 within an internal region of BTBD10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377183 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

BTBD10 (B-1) is recommended for detection of BTBD10 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BTBD10 (B-1) is also recommended for detection of BTBD10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BTBD10 siRNA (h): sc-96459, BTBD10 siRNA (m): sc-141769, BTBD10 shRNA Plasmid (h): sc-96459-SH, BTBD10 shRNA Plasmid (m): sc-141769-SH, BTBD10 shRNA (h) Lentiviral Particles: sc-96459-V and BTBD10 shRNA (m) Lentiviral Particles: sc-141769-V.

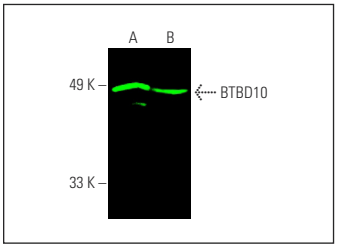
Molecular Weight of BTBD10: 54 kDa.

Positive Controls: mouse brain extract: sc-2253, Sol8 nuclear extract: sc-2157 or PC-3 nuclear extract: sc-2152.

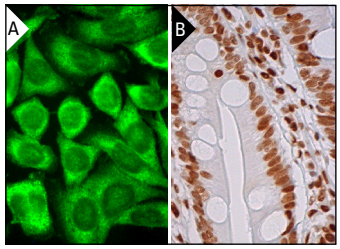
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



BTBD10 (B-1): sc-377183. Near-infrared western blot analysis of BTBD10 expression in PC-3 (**A**) and Sol8 (**B**) nuclear extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



BTBD10 (B-1): sc-377183. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Chen, C., et al. 2024. Single-cell and bulk RNA-seq unveils the immune infiltration landscape associated with cuproptosis in cerebral cavernous malformations. Biomark. Res. 12: 57.

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.