

# BTBD10 (N-12): sc-160978

## 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<sub>2</sub>H<sub>2</sub>-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.

## REFERENCES

1. Bardwell, V.J. and Treisman, R. 1994. The POZ domain: a conserved protein-protein interaction motif. *Genes Dev.* 8: 1664-1677.
2. Zollman, S., Godt, D., Prive, G.G., Couderc, J.L. and Laski, F.A. 1994. The BTB domain, found primarily in zinc finger proteins, defines an evolutionarily conserved family that includes several developmentally regulated genes in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 91: 10717-10721.
3. Ahmad, K.F., Engel, C.K. and Prive, G.G. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
4. Chen, J., Xu, J., Ying, K., Cao, G., Hu, G., Wang, L., Luo, C., Lou, M., Mao, Y., Xie, Y. and Lu, Y. 2004. Molecular cloning and characterization of a novel human BTB domain-containing gene, BTBD10, which is down-regulated in glioma. *Gene* 340: 61-69.
5. Kelly, K.F. and Daniel, J.M. 2006. POZ for effect — POZ-ZF transcription factors in cancer and development. *Trends Cell Biol.* 16: 578-587.

## CHROMOSOMAL LOCATION

Genetic locus: BTBD10 (human) mapping to 11p15.2; Btdb10 (mouse) mapping to 7 F1.

## SOURCE

BTBD10 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BTBD10 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-160978 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

BTBD10 (N-12) is recommended for detection of BTBD10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other BTBD family members.

BTBD10 (N-12) is also recommended for detection of BTBD10 in additional species, including equine, canine, bovine, porcine and avian.

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.

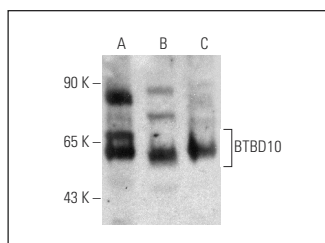
Molecular Weight of BTBD10: 54 kDa.

Positive Controls: mouse brain extract: sc-2253, LADMAC whole cell lysate: sc-364189 or WI 38 whole cell lysate: sc-364260.

## 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



BTBD10 (N-12): sc-160978. Western blot analysis of BTBD10 expression in mouse brain tissue extract (A) and LADMAC (B) and WI 38 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Lettieri Barbato, D., Aquilano, K., Baldelli, S., Cannata, S.M., Bernardini, S., Rotilio, G. and Ciriolo, M.R. 2013. Proline oxidase-adipose triglyceride lipase pathway restrains adipose cell death and tissue inflammation. *Cell Death Differ.* 21: 113-123.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.