SANTA CRUZ BIOTECHNOLOGY, INC.

BTBD2 (H-43): sc-134642



The Power to Question

BACKGROUND

BTBD2 (BTB/POZ domain-containing protein 2) is a 525 amino acid protein that contains one BTB/POZ domain. The BTB/POZ domain mediates homomeric and heteromeric POZ-POZ interactions and is common to transcriptional regulators involved in chromatin modeling. In several BTB/POZ containing proteins, including Bcl-6 and the promyelocytic leukemia zinc-finger (PLZF) oncoprotein, this domain interacts with the SMRT/N-CoR-mSin3A HDAC complex and is directly involved in repressing and silencing gene transcription. When this domain is deleted, as with the oncogenic PLZF-RAR chimera of promyelocytic leukemias, this transcriptional repression is attenuated. This suggests that BTBD2 may play a role in transcription regulation. BTBD2 is expressed as two isoforms produced by alternative splicing events and has been found to interact with Topo I and Trim58.

REFERENCES

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- 2. Huynh, K.D., et al. 1998. The BcI-6 POZ domain and other POZ domains interact with the co-repressors N-CoR and SMRT. Oncogene 17: 2473-2484.
- 3. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
- 4. Deltour, S., et al. 1999. Recruitment of SMRT/N-CoR-mSin3A-HDACrepressing complexes is not a general mechanism for BTB/POZ transcriptional repressors: the case of HIC-1 and γ FBP-B. Proc. Natl. Acad. Sci. USA 96: 14831-14836.
- 5. Carim-Todd, L., et al. 2001. Identification and characterization of BTBD1, a novel BTB domain containing gene on human chromosome 15q24. Gene 262: 275-281.
- Xu, L., et al. 2002. Characterization of BTBD1 and BTBD2, two similar BTBdomain-containing Kelch-like proteins that interact with topoisomerase I. BMC Genomics 3: 1.
- Yamada, A., et al. 2003. Gene and peptide analyses of newly defined lung cancer antigens recognized by HLA-A2402-restricted tumor-specific cytotoxic T lymphocytes. Cancer Res. 63: 2829-2835.
- Xu, L., et al. 2003. BTBD1 and BTBD2 colocalize to cytoplasmic bodies with the RBCC/tripartite motif protein, TRIM58. Exp. Cell Res. 288: 84-93.
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CHROMOSOMAL LOCATION

Genetic locus: BTBD2 (human) mapping to 19p13.3; Btbd2 (mouse) mapping to 10 C1.

STORAGE

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

SOURCE

BTBD2 (H-43) is a rabbit polyclonal antibody raised against amino acids 1-43 mapping at the N-terminus of BTBD2 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.

APPLICATIONS

BTBD2 (H-43) is recommended for detection of BTBD2 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).

Suitable for use as control antibody for BTBD2 siRNA (h): sc-97552, BTBD2 siRNA (m): sc-141775, BTBD2 shRNA Plasmid (h): sc-97552-SH, BTBD2 shRNA Plasmid (m): sc-141775-SH, BTBD2 shRNA (h) Lentiviral Particles: sc-97552-V and BTBD2 shRNA (m) Lentiviral Particles: sc-141775-V.

Molecular Weight of BTBD2: 56 kDa.

Positive Controls: Human PBL whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



BTBD2 (H-43): sc-134642. Western blot analysis of BTBD2 expression in human PBL whole cell lysate.

RESEARCH USE

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