SANTA CRUZ BIOTECHNOLOGY, INC.

BTBD6 (O-18): sc-101898

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

BTBD6 (BTB/POZ domain-containing protein 6), also known as BDPL or lens BTB domain protein, is a 410 amino acid protein that contains one BTB/POZ domain and is specifically expressed in the lens. 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 BTBD6 may play a role in transcription regulation in the lens.

REFERENCES

1. Wong, C.W. and Privalsky, M.L. 1998. Components of the SMRT co-repressor complex exhibit distinctive interactions with the POZ domain oncoproteins PLZF, PLZF-RARα, and Bcl-6. J. Biol. Chem. 273: 27695-27702.
2. David, G., et al. 1998. Histone deacetylase associated with mSin3A mediates repression by the acute promyelocytic leukemia-associated PLZF protein. Oncogene 16: 2549-2556.
3. Huynh, K.D. and Bardwell, V.J. 1998. The BCL-6 POZ domain and other POZ domains interact with the co-repressors N-CoR and SMRT. Oncogene 17: 2473-2484.
4. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
5. Deltour, S., et al. 1999. Recruitment of SMRT/N-CoR-mSin3A-HDAC-repressing complexes is not a general mechanism for BTB/POZ transcriptional repressors: the case of HIC-1 and γFBP-B. Proc. Natl. Acad. Sci. USA 96: 14831-14836.
6. Melnick, A., et al. 2002. Critical residues within the BTB domain of PLZF and Bcl-6 modulate interaction with co-repressors. Mol. Cell. Biol. 22: 1804-1818.
7. 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: BTBD6 (human) mapping to 14q32.33.

SOURCE

BTBD6 (O-18) is a purified rabbit polyclonal antibody raised against BTBD6 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

BTBD6 (O-18) is recommended for detection of BTBD6 of 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), 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).

Suitable for use as control antibody for BTBD6 siRNA (h): sc-92292, BTBD6 shRNA Plasmid (h): sc-92292-SH and BTBD6 shRNA (h) Lentiviral Particles: sc-92292-V.

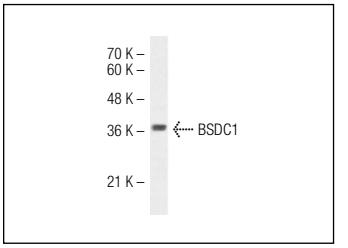
Molecular Weight of BTBD6: 46 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

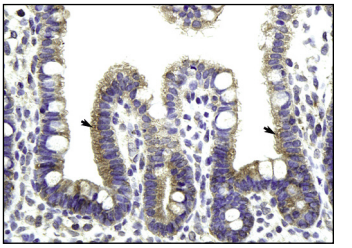
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



BSDC1 (Z-21): sc-101898. Western blot analysis of BSDC1 expression in Hep G2 whole cell lysate.



BTBD6 (O-18): sc-101898. Immunoperoxidase staining of formalin fixed, paraffin-embedded human intestine tissue showing cytoplasmic staining.

RESEARCH USE

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