SANTA CRUZ BIOTECHNOLOGY, INC.

BTBD12 (S-12): sc-107169

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The Power to Question

BACKGROUND

BTB/POZ domain-containing protein 12 (BTBD12) is an 1,834 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 BTBD12 may play a role in transcription regulation.

REFERENCES

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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., et al. 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 corepressors. Mol. Cell. Biol. 22: 1804-1818.
7. Trappe, R., et al. 2002. The murine BTB/POZ zinc finger gene Znf131: predominant expression in the developing central nervous system, in adult brain, testis, and thymus. Biochem. Biophys. Res. Commun. 296: 319-327.
8. Kelly, K.F., et al. 2006. POZ for effect—POZ-ZF transcription factors in cancer and development. Trends Cell Biol. 16: 578-587.
9. Qi, J., et al. 2006. ZBTB34, a novel human BTB/POZ zinc finger protein, is a potential transcriptional repressor. Mol. Cell. Biochem. 290: 159-167.

CHROMOSOMAL LOCATION

Genetic locus: BTBD12 (human) mapping to 16p13.3; Btbd12 (mouse) mapping to 16 A1.

SOURCE

BTBD12 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BTBD12 of human origin.

RESEARCH USE

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

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-107169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BTBD12 (S-12) is recommended for detection of BTBD12 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

BTBD12 (S-12) is also recommended for detection of BTBD12 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for BTBD12 siRNA (h): sc-93088, BTBD12 siRNA (m): sc-141771, BTBD12 shRNA Plasmid (h): sc-93088-SH, BTBD12 shRNA Plasmid (m): sc-141771-SH, BTBD12 shRNA (h) Lentiviral Particles: sc-93088-V and BTBD12 shRNA (m) Lentiviral Particles: sc-141771-V.

Molecular Weight of BTBD12: 200 kDa.

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) 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.

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.