SANTA CRUZ BIOTECHNOLOGY, INC.

BTBD12 (H-39): sc-135225

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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

1. Wong, C.W. and Privalsky, M.L. 1998. Components of the SMRT corepressor 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 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.

CHROMOSOMAL LOCATION

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

SOURCE

BTBD12 (H-39) is a rabbit polyclonal antibody raised against amino acids 286-324 mapping within an internal region of BTBD12 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.

RESEARCH USE

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

APPLICATIONS

BTBD12 (H-39) 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), 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.

BTBD12 (H-39) is also recommended for detection of BTBD12 in additional species, including equine, canine, 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.

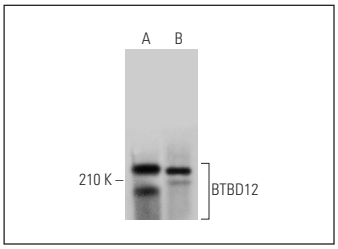
Molecular Weight of BTBD12: 200 kDa.

Positive Controls: mouse brain extract: sc-2253 or BC_3H1 cell lysate: sc-2299.

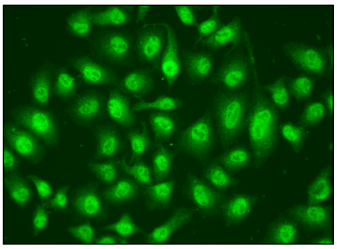
RECOMMENDED SECONDARY REAGENTS

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



BTBD12 (H-39): sc-135225. Western blot analysis of BTBD12 expression in mouse brain tissue extract (**A**) and BC_3H1 whole cell lysate (**B**).



BTBD12 (H-39): sc-135225. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear and cytoplasmic localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Childrens Hospital, Cell Biology Department, Harvard Medical School.

STORAGE

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