BTBD4 (P-16): sc-85313



The Power to Question

BACKGROUND

BTBD4 (BTB/POZ domain-containing protein 4), also known as zinc finger protein 340 (ZNF340) or zinc finger and BTB domain-containing protein 46 (ZBTB46), is a 589 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 BTBD4 may play a role in transcription regulation.

REFERENCES

- 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.
- David, G., et al. 1998. Histone deacetylase associated with mSin3A mediates repression by the acute promyelocytic leukemia-associated PLZF protein. Oncogene 16: 2549-2556.
- 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.
- Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
- 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 γFBP-B. Proc. Natl. Acad. Sci. USA 96: 14831-14836.
- 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.
- Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. Nature 429: 369-374.
- 8. 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: ZBTB46 (human) mapping to 20q13.33; Zbtb46 (mouse) mapping to 2 H4.

SOURCE

BTBD4 (P-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of BTBD4 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.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85313 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-85313 X, 100 $\mu g/0.1$ ml.

APPLICATIONS

BTBD4 (P-16) is recommended for detection of BTBD4 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.

BTBD4 (P-16) is also recommended for detection of BTBD4 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for BTBD4 siRNA (h): sc-72668, BTBD4 shRNA Plasmid (h): sc-72668-SH and BTBD4 shRNA (h) Lentiviral Particles: sc-72668-V.

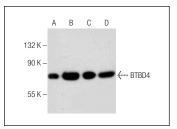
BTBD4 (P-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of BTBD4: 64 kDa.

Molecular Weight (observed) of BTBD4: 70 kDa.

Positive Controls: CCRF-CEM nuclear extract: sc-2146, Jurkat nuclear extract: sc-2132 or RAW 264.7 nuclear extract: sc-24961.

DATA



BTBD4 (P-16): sc-85313. Western blot analysis of BTBD4 expression in HL-60 (**A**), CCRF-CEM (**B**), Jurkat (**C**) and RAW 264.7 (**D**) nuclear extracts.

RESEARCH USE

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

PROTOCOLS

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