

BTBD4 (G-15): sc-85312

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

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-RAR α , 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.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB46 (human) mapping to 20q13.33; Zbtb46 (mouse) mapping to 2 H4.

SOURCE

BTBD4 (G-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of BTBD4 of human origin.

SPRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85312 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-85312 X, 100 μ g/0.1 ml.

TORAGE

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

RESEARCH USE

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

APPLICATIONS

BTBD4 (G-15) 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 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); non cross-reactive with other BTBD family members.

BTBD4 (G-15) is also recommended for detection of BTBD4 in additional species, including bovine.

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 (G-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of BTBD4: 64 kDa.

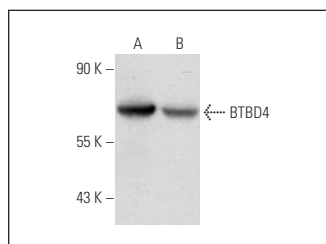
Molecular Weight (observed) of BTBD4: 70 kDa.

Positive Controls: JAR cell lysate: sc-2276, HL-60 whole cell lysate: sc-2209 or human placenta extract: sc-363772.

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



BTBD4 (G-15): sc-85312. Western blot analysis of BTBD4 expression in HL-60 (A) and JAR (B) whole cell lysates.

PROTOCOLS

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