

BTBD4 (C-5): sc-390260

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., et al. 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.
- 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., 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.
- 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 (C-5) is a mouse antibody specific for an epitope mapping between amino acids 391-421 within an internal region of BTBD4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-390260 X, 200 μ g/0.1 ml.

BTBD4 (C-5) is available conjugated to agarose (sc-390260 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390260 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390260 PE), fluorescein (sc-390260 FITC), Alexa Fluor[®] 488 (sc-390260 AF488), Alexa Fluor[®] 546 (sc-390260 AF546), Alexa Fluor[®] 594 (sc-390260 AF594) or Alexa Fluor[®] 647 (sc-390260 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390260 AF680) or Alexa Fluor[®] 790 (sc-390260 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390260 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

BTBD4 (C-5) is recommended for detection of BTBD4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 (C-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of BTBD4: 64 kDa.

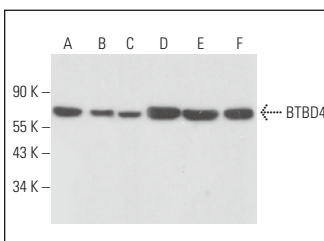
Molecular Weight (observed) of BTBD4: 70 kDa.

Positive Controls: HL-60 nuclear extract: sc-2147, CCRF-CEM nuclear extract: sc-2146 or Jurkat nuclear extract: sc-2132.

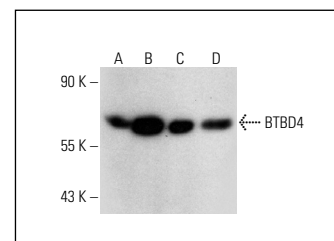
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



BTBD4 (C-5): sc-390260. Western blot analysis of BTBD4 expression in Jurkat (A), MOLT-4 (B) and WEHI-231 (C) nuclear extracts and ALL-SIL (D), WR19L (E) and BYDP (F) whole cell lysates.



BTBD4 (C-5): sc-390260. Western blot analysis of BTBD4 expression in HL-60 (A), CCRF-CEM (B), Jurkat (C) and RAW 264.7 (D) nuclear extracts.

STORAGE

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.

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