

# BTBD1 (H-60): sc-134641

## BACKGROUND

BTBD1 (BTB/POZ domain containing 1), also known as NS5ATP8 (hepatitis C virus (HCV) NS5A-transactivated protein 8), is a ubiquitously expressed cytoplasmic protein with predominant expression in skeletal muscle and heart. BTBD1 is expressed in a wide variety of species ranging from *C. elegans* to humans and specifically localizes to cytoplasmic bodies. It shares 80% amino acid sequence identity with its homolog, BTBD2. BTBD1 contains one BTB/POZ domain, which is a hydrophobic-rich motif known to mediate homomeric and heteromeric POZ-POZ interactions that are commonly found at the N-terminus of developmentally regulated zinc-finger transcription factors. BTBD1 also contains a C-terminal kelch-like region and a PHR-like region. Via its C-terminus, BTBD1 is capable of interacting with Topo I. In addition, BTBD1 is required for myoblast growth and differentiation.

## REFERENCES

1. Carim-Todd, L., et al. 2001. Identification and characterization of BTBD1, a novel BTB domain containing gene on human chromosome 15q24. *Gene* 262: 275-281.
2. Xu, L., et al. 2002. Characterization of BTBD1 and BTBD2, two similar BTB-domain-containing kelch-like proteins that interact with topoisomerase I. *BMC Genomics* 3: 1.
3. Xu, L., et al. 2003. BTBD1 and BTBD2 co-localize to cytoplasmic bodies with the RBCC/tripartite motif protein, TRIM5 $\delta$ . *Exp. Cell Res.* 288: 84-93.
4. Pisani, D.F., et al. 2004. The topoisomerase 1-interacting protein BTBD1 is essential for muscle cell differentiation. *Cell Death Differ.* 11: 1157-1165.
5. Smith, T.H., et al. 2006. Identification and isolation of a BTB/POZ-containing gene expressed in oocytes and early embryos of the zebrafish *Danio rerio*. *Genome* 49: 808-814.
6. Wu, W., et al. 2006. Thorough validation of siRNA-induced cell death phenotypes defines new anti-apoptotic protein. *Nucleic Acids Res.* 34: e13.
7. Pisani, D.F., et al. 2007. Involvement of BTBD1 in mesenchymal differentiation. *Exp. Cell Res.* 313: 2417-2426.
8. Bilic, I. and Ellmeier, W. 2007. The role of BTB domain-containing zinc finger proteins in T cell development and function. *Immunol. Lett.* 108: 1-9.

## CHROMOSOMAL LOCATION

Genetic locus: BTBD1 (human) mapping to 15q25.2; Btdb1 (mouse) mapping to 7 D3.

## SOURCE

BTBD1 (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of BTBD1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

BTBD1 (H-60) is recommended for detection of BTBD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

BTBD1 (H-60) is also recommended for detection of BTBD1 in additional species, including porcine.

Suitable for use as control antibody for BTBD1 siRNA (h): sc-90045, BTBD1 siRNA (m): sc-141768, BTBD1 shRNA Plasmid (h): sc-90045-SH, BTBD1 shRNA Plasmid (m): sc-141768-SH, BTBD1 shRNA (h) Lentiviral Particles: sc-90045-V and BTBD1 shRNA (m) Lentiviral Particles: sc-141768-V.

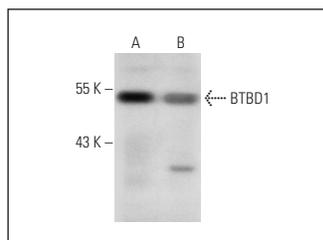
Molecular Weight of BTBD1: 53 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810, mouse cerebellum extract: sc-2403 or HeLa whole cell lysate: sc-2200.

## 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



BTBD1 (H-60): sc-134641. Western blot analysis of BTBD1 expression in rat skeletal muscle (A) and mouse cerebellum (B) tissue 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.