

BTBD1 (A-12): sc-398235

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 colocalize to cytoplasmic bodies with the RBCC/tripartite motif protein, TRIM5 δ . *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.

CHROMOSOMAL LOCATION

Genetic locus: BTBD1 (human) mapping to 15q25.2.

SOURCE

BTBD1 (A-12) is a mouse monoclonal antibody raised against amino acids 1-60 mapping at the N-terminus of BTBD1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BTBD1 (A-12) is available conjugated to agarose (sc-398235 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398235 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398235 PE), fluorescein (sc-398235 FITC), Alexa Fluor[®] 488 (sc-398235 AF488), Alexa Fluor[®] 546 (sc-398235 AF546), Alexa Fluor[®] 594 (sc-398235 AF594) or Alexa Fluor[®] 647 (sc-398235 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398235 AF680) or Alexa Fluor[®] 790 (sc-398235 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

BTBD1 (A-12) is recommended for detection of BTBD1 of 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 BTBD1 siRNA (h): sc-90045, BTBD1 shRNA Plasmid (h): sc-90045-SH and BTBD1 shRNA (h) Lentiviral Particles: sc-90045-V.

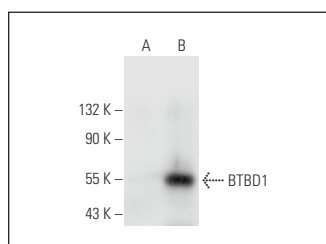
Molecular Weight of BTBD1: 53 kDa.

Positive Controls: BTBD1 (h): 293T Lysate: sc-114772.

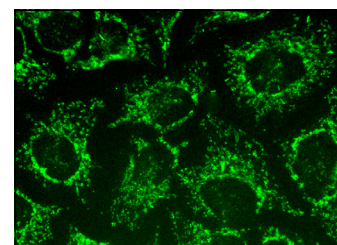
RECOMMENDED SUPPORT REAGENTS

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



BTBD1 (A-12): sc-398235. Western blot analysis of BTBD1 expression in non-transfected: sc-117752 (A) and human BTBD1 transfected: sc-114772 (B) 293T whole cell lysates.



BTBD1 (A-12): sc-398235. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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.

PROTOCOLS

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