BXDC2 (H-144): sc-98298



The Power to Overtin

BACKGROUND

BXDC2 (Brix domain-containing protein 2) is a 306 amino acid protein encoded by the human gene BXDC2. BXDC2 is a nuclear protein that contains one Brix domain. Brix domain containing proteins represent a family of proteins involved in the biogenesis of large ribosomal subunits. The Brix domain is a region that is homologous to the yeast protein Pitx1 (ribosome biogenesis protein BRX1). Pitx1 is part of a complex that includes BXDC5, BXDC1 and PPAN. This complex is required for the biogenesis of the 60S ribosomal subunit. BXDC2 exhibits the same functions as Pitx1.

REFERENCES

- Strezoska, Z., Pestov, D.G. and Lau, L.F. 2000. Bop1 is a mouse WD40 repeat nucleolar protein involved in 28S and 5.8S rRNA processing and 60S ribosome biogenesis. Mol. Cell. Biol. 20: 5516-5528.
- Sasaki, T., Toh-E, A. and Kikuchi, Y. 2000. Yeast Krr1p physically and functionally interacts with a novel essential Kri1p, and both proteins are required for 40S ribosome biogenesis in the nucleolus. Mol. Cell. Biol. 20: 7971-7979.
- Kaser, A., Bogengruber, E., Hallegger, M., Doppler, E., Lepperdinger, G., Jantsch, M., Breitenbach, M. and Kreil, G. 2002. Brix from *Xenopus laevis* and brx1p from yeast define a new family of proteins involved in the biogenesis of large ribosomal subunits. Biol. Chem. 382: 1637-1647.
- 4. Morita, D., Miyoshi, K., Matsui, Y., Toh-E, A., Shinkawa, H., Miyakawa, T. and Mizuta, K. 2002. Rpf2p, an evolutionarily conserved protein, interacts with ribosomal protein L11 and is essential for the processing of 27 SB Pre-rRNA to 25 S rRNA and the 60 S ribosomal subunit assembly in Saccharomyces cerevisiae. J. Biol. Chem. 277: 28780-28786.
- Mungall, A.J., Palmer, S.A., Sims, S.K., Edwards, C.A., Ashurst, J.L., Wilming, L., Jones, M.C., Horton, R., Hunt, S.E., Scott, C.E., Gilbert, J.G.R., Clamp, M.E., Bethel, G., Milne, S., Ainscough, R., Almeida, J.P., Ambrose, K.D., et al. 2003. The DNA sequence and analysis of human chromosome 6. Nature 425: 805-811.
- McQueen, M.B., Devlin, B., Faraone, S.V., Nimgaonkar, V.L., Sklar, P., Smoller, J.W., Abou Jamra, R., Albus, M., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. Am. J. Hum. Genet. 77: 582-595.
- 7. Olsson, K.S., Ritter, B. and Hansson, N. 2007. The HLA-A1-B8 haplotype hitchhiking with the hemochromatosis mutation: does it affect the phenotype? Eur. J. Haematol. 79: 429-434.
- 8. Safadi, S.S. and Shaw, G.S. 2007. A disease state mutation unfolds the parkin ubiquitin-like domain. Biochemistry 46: 14162-14169.

CHROMOSOMAL LOCATION

Genetic locus: BRIX1 (human) mapping to 5p13.2; Brix1 (mouse) mapping to 15 A1.

RESEARCH USE

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

SOURCE

BXDC2 (H-144) is a rabbit polyclonal antibody raised against amino acids 42-185 mapping within an internal region of BXDC2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BXDC2 (H-144) is recommended for detection of BXDC2 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).

BXDC2 (H-144) is also recommended for detection of BXDC2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for BXDC2 siRNA (h): sc-91590, BXDC2 siRNA (m): sc-141793, BXDC2 shRNA Plasmid (h): sc-91590-SH, BXDC2 shRNA Plasmid (m): sc-141793-SH, BXDC2 shRNA (h) Lentiviral Particles: sc-91590-V and BXDC2 shRNA (m) Lentiviral Particles: sc-141793-V.

Molecular Weight of BXDC2: 41 kDa.

Positive Controls: 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.

STORAGE

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

PROTOCOLS

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