

BXDC1 (2099C7a): sc-81060

BACKGROUND

BXDC1 (Brix domain-containing protein 1) is a 306 amino acid protein encoded by the human gene BXDC1. BXDC1 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 with homology to the yeast protein Ptx1 (ribosome biogenesis protein BRX1). Ptx1 is part of a complex that includes RPF1, RPF2 and SSF1 or SSF2. This complex is required for the biogenesis of the 60S ribosomal subunit.

REFERENCES

1. 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.
2. 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.
3. 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.
5. 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.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: BXDC1 (human) mapping to 6q21.

SOURCE

BXDC1 (2099C7a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the C-terminus of BXDC1 of human origin.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

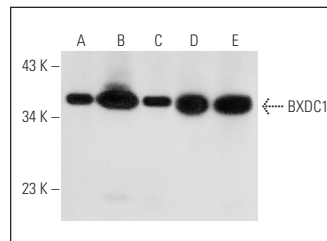
BXDC1 (2099C7a) is recommended for detection of BXDC1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for BXDC1 siRNA (h): sc-95623, BXDC1 shRNA Plasmid (h): sc-95623-SH and BXDC1 shRNA (h) Lentiviral Particles: sc-95623-V.

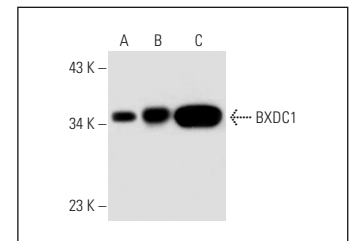
Molecular Weight of BXDC1: 36 kDa.

Positive Controls: BXDC1 (h): 293T Lysate: sc-113764, HEK293 whole cell lysate: sc-45136 or HeLa whole cell lysate: sc-2200.

DATA



BXDC1 (2099C7a): sc-81060. Western blot analysis of BXDC1 expression in HEK293 (A), A549 (B), HL-60 (C), NCI-H1299 (D) and Jurkat (E) whole cell lysates.



BXDC1 (2099C7a): sc-81060. Western blot analysis of BXDC1 expression in non-transfected 293T: sc-117752 (A), human BXDC1 transfected 293T: sc-113764 (B) and HeLa (C) whole cell lysates.

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.