

BRI3BP (C-14): sc-161393

BACKGROUND

BRI3BP (BRI3 binding protein), also known as BNAS1, HCCR-1, I3-binding protein or cervical cancer 1 proto-oncogene-binding protein KG19, is a 251 amino acid multi-pass membrane protein. Though widely expressed, BRI3BP is found at highest levels in brain, kidney and liver where it localizes to the endoplasmic reticulum (ER) and is involved in ER structural dynamics and mitochondrial viability. Possessing pro-apoptotic properties and the ability to potentiate drug-induced apoptosis, BRI3BP overexpression has been shown to enhance caspase-3 and mitochondrial cytochrome c release in etoposide-treated human embryonic kidney 293T cells. The gene encoding BRI3BP maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including achondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

1. Delgado Carrasco, J., Casanova Morcillo, A., Zabalza Alvillos, M. and Ayala Garces, A. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features. Case report. *An. Esp. Pediatr.* 55: 553-557.
2. Lin, L., Wu, Y., Li, C. and Zhao, S. 2001. Cloning, tissue expression pattern, and chromosome location of a novel human gene BRI3BP. *Biochem. Genet.* 39: 369-377.
3. Yokoyama, T., Nakatani, S. and Murakami, A. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
4. Forzano, F., Lituania, M., Viassolo, A., Superti-Furga, V., Wildhardt, G., Zabel, B. and Faravelli, F. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. *Am. J. Med. Genet. A* 143A: 2815-2820.
5. Yamazaki, T., Sasaki, N., Nishi, M., Yamazaki, D., Ikeda, A., Okuno, Y., Komazaki, S. and Takeshima, H. 2007. Augmentation of drug-induced cell death by ER protein BRI3BP. *Biochem. Biophys. Res. Commun.* 362: 971-975.
6. Wainwright, H. and Beighton, P. 2008. Visceral manifestations of hypochondrogenesis. *Virchows Arch.* 453: 203-207.
7. Lo, F.S., Luo, J.D., Lee, Y.J., Shu, S.G., Kuo, M.T. and Chiou, C.C. 2009. High resolution melting analysis for mutation detection for PTPN11 gene: applications of this method for diagnosis of Noonan syndrome. *Clin. Chim. Acta* 409: 75-77.
8. Benussi, D.G., Costa, P., Zollino, M., Murdolo, M., Petix, V., Carrozzi, M. and Pecile, V. 2009. Trisomy 12p and monosomy 4p: phenotype-genotype correlation. *Genet. Test. Mol. Biomarkers* 13: 199-204.

CHROMOSOMAL LOCATION

Genetic locus: BRI3BP (human) mapping to 12q24.31; Bri3bp (mouse) mapping to 5 G1.1.

RESEARCH USE

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

SOURCE

BRI3BP (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of BRI3BP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-161393 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BRI3BP (C-14) is recommended for detection of BRI3BP 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).

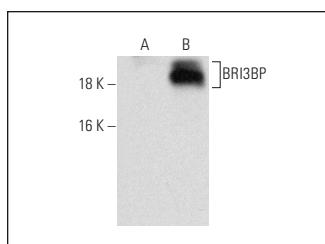
BRI3BP (C-14) is also recommended for detection of BRI3BP in additional species, including bovine.

Suitable for use as control antibody for BRI3BP siRNA (h): sc-95884, BRI3BP siRNA (m): sc-141746, BRI3BP shRNA Plasmid (h): sc-95884-SH, BRI3BP shRNA Plasmid (m): sc-141746-SH, BRI3BP shRNA (h) Lentiviral Particles: sc-95884-V and BRI3BP shRNA (m) Lentiviral Particles: sc-141746-V.

Molecular Weight of BRI3BP: 28 kDa.

Positive Controls: BRI3BP (h): 293T Lysate: sc-113862.

DATA



BRI3BP (C-14): sc-161393. Western blot analysis of BRI3BP expression in non-transfected: sc-117752 (A) and human BRI3BP transfected: sc-113862 (B) 293T whole cell lysates.

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.