

# FRBZ1 (N-16): sc-246960

## BACKGROUND

Members of the BTB/POZ family of zinc finger transcription factors contain a POZ (or BTB) domain that mediates homomeric and heteromeric POZ-POZ interactions. FRBZ1, also known as ZBTB41 (zinc finger and BTB domain containing 41) or ZNF924, is a 909 amino acid nuclear protein that contains one BTB (POZ) domain and 14 C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Thought to play a role in transcriptional regulation, FRBZ1 exists as two alternatively spliced isoforms that are encoded by a gene located on human chromosome 1q31.3. Chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

- Eudy, J.D., Weston, M.D., Yao, S., Hoover, D.M., Rehm, H.L., Ma-Edmonds, M., Yan, D., Ahmad, I., Cheng, J.J., Ayuso, C., Cremers, C., Davenport, S., Moller, C., Talmadge, C.B., Beisel, K.W., Tamayo, M., Morton, C.C., Swaroop, A., Kimberling, W.J. and Sumegi, J. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. *Science* 280: 1753-1757.
- Collins, T., Stone, J.R. and Williams, A.J. 2001. All in the family: the BTB/POZ, KRAB, and SCAN domains. *Mol. Cell. Biol.* 21: 3609-3615.
- Tayebi, N., Callahan, M., Madike, V., Stubblefield, B.K., Orvisky, E., Krasnewich, D., Fillano, J.J. and Sidransky, E. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
- Plasilova, M., Russell, A.M., Wanner, A., Wolf, A., Dobbie, Z., Müller, H.J. and Heinemann, K. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
- Betarbet, R., Anderson, L.R., Gearing, M., Hodges, T.R., Fritz, J.J., Lah, J.J. and Levey, A.I. 2008. Fas-associated factor 1 and Parkinson's disease. *Neurobiol. Dis.* 31: 309-315.
- Urov, Y.B., Iourov, I.Y., Vorsanova, S.G., Demidova, I.A., Kravetz, V.S., Beresheva, A.K., Kolotii, A.D., Monakhov, V.V., Uranova, N.A., Vostrikov, V.M., Soloviev, I.V. and Liehr, T. 2008. The schizophrenia brain exhibits low-level aneuploidy involving chromosome 1. *Schizophr. Res.* 98: 139-147.
- Balcáková, J., Urbánková, H., Scudla, V., Holzerová, M., Bacovský, J., Indrák, K. and Jarosová, M. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. *Cancer Genet. Cytogenet.* 192: 68-72.
- Yokoi, T., Koide, R., Matsuoka, K., Nakagawa, A. and Azuma, N. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. *Graefes Arch. Clin. Exp. Ophthalmol.* 247: 715-718.

## CHROMOSOMAL LOCATION

Genetic locus: ZBTB41 (human) mapping to 1q31.3; Zbtb41 (mouse) mapping to 1 F.

## SOURCE

FRBZ1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FRBZ1 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-246960 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FRBZ1 (N-16) is recommended for detection of FRBZ1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FRBZ1 (N-16) is also recommended for detection of FRBZ1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for FRBZ1 siRNA (h): sc-88363, FRBZ1 siRNA (m): sc-145239, FRBZ1 shRNA Plasmid (h): sc-88363-SH, FRBZ1 shRNA Plasmid (m): sc-145239-SH, FRBZ1 shRNA (h) Lentiviral Particles: sc-88363-V and FRBZ1 shRNA (m) Lentiviral Particles: sc-145239-V.

Molecular Weight of FRBZ1 isoforms: 105/73 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.