SANTA CRUZ BIOTECHNOLOGY, INC.

ZBTB40 (N-16): sc-163538

BACKGROUND

The BTB (broad-complex, tramtrack and bric a brac) domain, also known as the POZ (Poxvirus and Zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C_2H_2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. ZBTB40 (zinc finger and BTB domain containing 40), also known as ZNF923, is a 1,239 amino acid nuclear protein that may be involved in transcriptional regulation. ZBTB40 contains one BTB/POZ domain and twelve C_2H_2-type zinc fingers. As a result of alternative splicing events, two ZBTB8 isoforms exist. The gene encoding ZBTB40 maps to human chromosome 1, which spans about 260 million base pairs, makes up 8% of the human genome and contains approximately 3,000 genes. A large number of diseases and disorders are associated with chromosome 1 including Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome.

REFERENCES

1. Bardwell, V.J. and Treisman, R. 1994. The POZ domain: a conserved protein-protein interaction motif. Genes Dev. 8: 1664-1677.
2. Zollman, S., et al. 1994. The BTB domain, found primarily in zinc finger proteins, defines an evolutionarily conserved family that includes several developmentally regulated genes in Drosophila. Proc. Natl. Acad. Sci. USA 91: 10717-10721.
3. Eudy, J.D., et al. 1998. Isolation of a gene encoding a novel member of the nuclear receptor superfamily from the critical region of Usher syndrome type IIa at 1q41. Genomics 50: 382-384.
4. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
5. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. Mol. Genet. Metab. 73: 313-321.
6. Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. Genome Res. 16: 55-65.
7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.
8. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.
9. Yokoi, T., et al. 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: ZBTB40 (human) mapping to 1p36.12; Zbtb40 (mouse) mapping to 4 D3.

SOURCE

ZBTB40 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ZBTB40 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-163538 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZBTB40 (N-16) is recommended for detection of ZBTB40 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); non cross-reactive with other ZBTB family members.

ZBTB40 (N-16) is also recommended for detection of ZBTB40 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZBTB40 siRNA (h): sc-88019, ZBTB40 siRNA (m): sc-155448, ZBTB40 shRNA Plasmid (h): sc-88019-SH, ZBTB40 shRNA Plasmid (m): sc-155448-SH, ZBTB40 shRNA (h) Lentiviral Particles: sc-88019-V and ZBTB40 shRNA (m) Lentiviral Particles: sc-155448-V.

Molecular Weight of ZBTB40 isoforms: 138/26 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 or our catalog for detailed protocols and support products.