SANTA CRUZ BIOTECHNOLOGY, INC.

ZBTB1 (E-4): sc-515076

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. ZBTB1 (zinc finger and BTB domain containing 1), also known as KIAA0997, is a 713 amino acid nuclear protein that contains one BTB (POZ) domain and eight C_2H_2-type zinc fingers and is thought to be involved in transcriptional regulation events. The gene encoding ZBTB1 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome.

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., Godt, D., Privé, G.G., Couderc, J.L. and Laski, F.A. 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. Ahmad, K.F., Engel, C.K. and Privé, G.G. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
4. Nagase, T., Ishikawa, K., Suyama, M., Kikuno, R., Hirosawa, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 63-70.
5. Li, Z., Stonehuerner, J., Devlin, R.B. and Huang, Y.C. 2005. Discrimination of vanadium from zinc using gene profiling in human bronchial epithelial cells. Environ. Health Perspect. 113: 1747-1754.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB1 (human) mapping to 14q23.3.

SOURCE

ZBTB1 (E-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 10-28 near the N-terminus of ZBTB1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515076 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

ZBTB1 (E-4) is recommended for detection of ZBTB1 of human origin by Western Blotting (starting dilution 1:100, 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); may cross react with ZBTB2 and ZBTB25.

Suitable for use as control antibody for ZBTB1 siRNA (h): sc-92283, ZBTB1 shRNA Plasmid (h): sc-92283-SH and ZBTB1 shRNA (h) Lentiviral Particles: sc-92283-V.

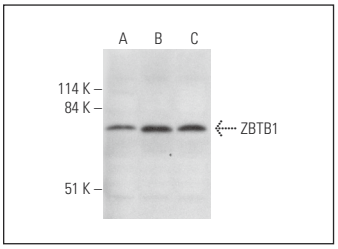
Molecular Weight of ZBTB1: 82/57/50 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat nuclear extract: sc-2132 or HEK293 whole cell lysate: sc-45136.

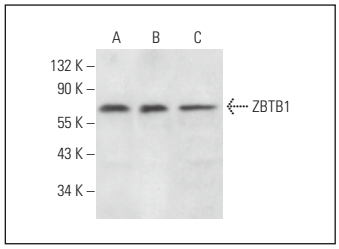
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZBTB1 (E-4): sc-515076. Western blot analysis of ZBTB1 expression in HeLa (**A**) and Jurkat (**B**) nuclear extracts and HEK293 whole cell lysate (**C**).



ZBTB1 (E-4): sc-515076. Western blot analysis of ZBTB1 expression in K-562 (**A**), HeLa (**B**) and HEK293 (**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.