SANTA CRUZ BIOTECHNOLOGY, INC.

ZBTB20 (1F3): sc-293318

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Zinc finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZBTB20 (zinc finger and BTB domain containing 20), also known as HOF, DPZF, ODA-8S or ZNF288, is a 741 amino acid protein that localizes to the nucleus and contains one BTB (POZ) domain and five C_2H_2-type zinc fingers. Expressed in thymus, spleen, lymph node and fetal liver, ZBTB20 exists as either a monomer or a homodimer that is thought to function as a transcription factor, playing a role in hematopoiesis, oncogenesis and immune responses. Multiple isoforms of ZBTB20 exist due to alternative splicing events.

REFERENCES

1. Harboe, T.L., et al. 2000. Assignment of the human zinc finger gene, ZNF288, to chromosome 3 band q13.2 by radiation hybrid mapping and fluorescence *in situ* hybridisation. Cytogenet. Cell Genet. 89: 156-157.
2. Zhang, W., et al. 2001. Identification and characterization of DPZF, a novel human BTB/POZ zinc finger protein sharing homology to Bcl-6. Biochem. Biophys. Res. Commun. 282: 1067-1073.
3. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606025. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Mitchelmore, C., et al. 2002. Characterization of two novel nuclear BTB/POZ domain zinc finger isoforms. Association with differentiation of hippocampal neurons, cerebellar granule cells, and macroglia. J. Biol. Chem. 277: 7598-7609.
5. Nielsen, J.V., et al. 2007. Hippocampus-like corticoneurogenesis induced by two isoforms of the BTB-zinc finger gene Zbtb20 in mice. Development 134: 1133-1140.
6. Xie, Z., et al. 2008. Zinc finger protein ZBTB20 is a key repressor of α-fetoprotein gene transcription in liver. Proc. Natl. Acad. Sci. USA 105: 10859-10864.
7. Sutherland, A.P., et al. 2009. Zinc finger protein Zbtb20 is essential for post-natal survival and glucose homeostasis. Mol. Cell. Biol. 29: 2804-2815.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB20 (human) mapping to 3q13.31; Zbtb20 (mouse) mapping to 16 B4.

SOURCE

ZBTB20 (1F3) is a mouse monoclonal antibody raised against amino acids 451-542 of ZBTB20 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

ZBTB20 (1F3) is recommended for detection of ZBTB20 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZBTB20 siRNA (h): sc-78021, ZBTB20 siRNA (m): sc-155438, ZBTB20 shRNA Plasmid (h): sc-78021-SH, ZBTB20 shRNA Plasmid (m): sc-155438-SH, ZBTB20 shRNA (h) Lentiviral Particles: sc-78021-V and ZBTB20 shRNA (m) Lentiviral Particles: sc-155438-V.

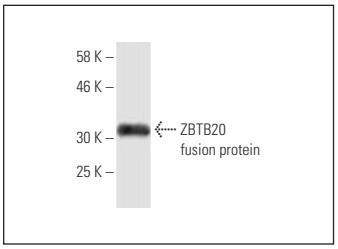
Molecular Weight (predicted) of ZBTB20: 81 kDa.

Molecular Weight (observed) of ZBTB20: 89 kDa.

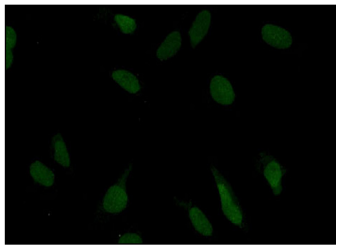
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ZBTB20 (1F3): sc-293318. Western blot analysis of human recombinant ZBTB20 fusion protein.



ZBTB20 (1F3): sc-293318. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

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.