

ZBTB7C (N-15): sc-85220



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 C₂H₂-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. The zinc finger and BTB domain-containing protein 7C (ZBTB7C), also designated affected by papillomavirus DNA integration in ME180 cells protein 1 (APM-1), contains one BTB (POZ) domain and four C₂H₂-type zinc fingers. ZBTB7C is detected in normal cervical keratinocytes and may be a potential tumor suppressor gene against human papillomavirus (HPV) mediated cervical carcinogenesis.

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., Prive, 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 Prive, G.G. 1998. Crystal structure of the BTB domain from PLZF. *Proc. Natl. Acad. Sci. USA* 95: 12123-12128.
4. Reuter, S., Bartelmann, M., Vogt, M., Geisen, C., Napierski, I., Kahn, T., Delius, H., Lichter, P., Weitz, S., Korn, B. and Schwarz, E. 1998. APM-1, a novel human gene, identified by aberrant co-transcription with papillomavirus oncogenes in a cervical carcinoma cell line, encodes a BTB/POZ-zinc finger protein with growth inhibitory activity. *EMBO J.* 17: 215-222.
5. Rual, J.F., Venkatesan, K., Hao, T., Hirozane-Kishikawa, T., Dricot, A., Li, N., Berriz, G.F., Gibbons, F.D., Dreze, M., Ayivi-Guedehoussou, N., Klitgord, N., Simon, C., Boxem, M., Milstein, S., Rosenberg, J., Goldberg, D.S., Zhang, L.V., Wong, S.L., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. *Nature* 437: 1173-1178.
6. Kimura, K., Wakamatsu, A., Suzuki, Y., Ota, T., Nishikawa, T., Yamashita, R., Yamamoto, J., Sekine, M., Tsuritani, K., Wakaguri, H., Ishii, S., Sugiyama, T., Saito, K., Isono, Y., Irie, R., Kushida, N., Yoneyama, T., Otsuka, R., Kanda, K., Yokoi, T., Kondo, H., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB7C (human) mapping to 18q21.1; Zbtb7c (mouse) mapping to 18 E3.

SOURCE

ZBTB7C (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZBTB7C of human origin.

STORAGE

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

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-85220 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-85220 X, 100 µg/0.1 ml.

APPLICATIONS

ZBTB7C (N-15) is recommended for detection of ZBTB7C of mouse 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).

ZBTB7C (N-15) is also recommended for detection of ZBTB7C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZBTB7C siRNA (h): sc-76950, ZBTB7C siRNA (m): sc-155454, ZBTB7C shRNA Plasmid (h): sc-76950-SH, ZBTB7C shRNA Plasmid (m): sc-155454-SH, ZBTB7C shRNA (h) Lentiviral Particles: sc-76950-V and ZBTB7C shRNA (m) Lentiviral Particles: sc-155454-V.

ZBTB7C (N-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZBTB7C: 69 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.

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.