SANTA CRUZ BIOTECHNOLOGY, INC.

RCBTB1 (H-50): sc-292161

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. RCBTB1 (regulator of chromosome condensation (RCC1) and BTB (POZ) domain containing protein 1), also known as GLP, CLLD7, CLLL7 or E4.5, is a 531 amino acid protein that localizes to the nucleus and contains 2 BTB (POZ) domains and six RCC1 repeats. Expressed ubiquitously, RCBTB1 is thought to be involved in cell cycle regulation, specifically via chromatin remodeling. The gene encoding RCBTB1 maps to a region on human chromosome 13 that is frequently deleted in B-cell chronic lymphocytic leukemia, suggesting a possible role for RCBTB1 in tumor suppression.

REFERENCES

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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. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
4. Mabuchi, H., et al. 2001. Cloning and characterization of CLLD6, CLLD7, and CLLD8, novel candidate genes for leukemogenesis at chromosome 13q14, a region commonly deleted in B-cell chronic lymphocytic leukemia. Cancer Res. 61: 2870-2877.
5. Solomou, E.E., et al. 2003. 13q deletion in chronic lymphocytic leukemia: characterization of E4.5, a novel chromosome condensation regulator-like guanine nucleotide exchange factor. Leuk. Lymphoma 44: 1579-1585.
6. Guo, D.F., et al. 2004. A novel angiotensin II type 1 receptor-associated protein induces cellular hypertrophy in rat vascular smooth muscle and renal proximal tubular cells. J. Biol. Chem. 279: 21109-21120.
7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 607867. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: RCBTB1 (human) mapping to 13q14.2; Rcbtb1 (mouse) mapping to 14 C3.

SOURCE

RCBTB1 (H-50) is a rabbit polyclonal antibody raised against amino acids 26-75 mapping near the N-terminus of RCBTB1 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.

APPLICATIONS

RCBTB1 (H-50) is recommended for detection of RCBTB1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RCBTB1 (H-50) is also recommended for detection of RCBTB1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RCBTB1 siRNA (h): sc-76375, RCBTB1 siRNA (m): sc-152769, RCBTB1 shRNA Plasmid (h): sc-76375-SH, RCBTB1 shRNA Plasmid (m): sc-152769-SH, RCBTB1 shRNA (h) Lentiviral Particles: sc-76375-V and RCBTB1 shRNA (m) Lentiviral Particles: sc-152769-V.

Molecular Weight of RCBTB1: 58 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.