

## RCBTB1 (G-2): sc-377341

### 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<sub>2</sub>H<sub>2</sub>-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 two BTB (POZ) domains and 6 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

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. Mabuchi, H., Fujii, H., Calin, G., Alder, H., Negrini, M., Rassenti, L., Kipps, T.J., Bullrich, F. and Croce, C.M. 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.

### CHROMOSOMAL LOCATION

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

### SOURCE

RCBTB1 (G-2) is a mouse monoclonal antibody raised against amino acids 26-75 mapping near the N-terminus of RCBTB1 of human origin.

### PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RCBTB1 (G-2) is available conjugated to agarose (sc-377341 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377341 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377341 PE), fluorescein (sc-377341 FITC), Alexa Fluor<sup>®</sup> 488 (sc-377341 AF488), Alexa Fluor<sup>®</sup> 546 (sc-377341 AF546), Alexa Fluor<sup>®</sup> 594 (sc-377341 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-377341 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-377341 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-377341 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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### APPLICATIONS

RCBTB1 (G-2) is recommended for detection of RCBTB1 of mouse, rat and 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).

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.

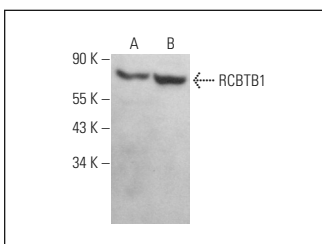
Molecular Weight of RCBTB1: 58 kDa.

Positive Controls: TT whole cell lysate: sc-364195, Hep G2 cell lysate: sc-2227 or A549 cell lysate: sc-2413.

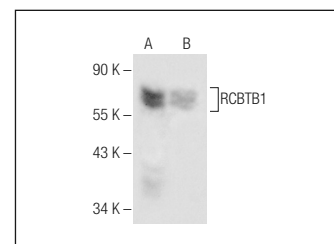
### RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

### DATA



RCBTB1 (G-2): sc-377341. Western blot analysis of RCBTB1 expression in A549 (A) and Hep G2 (B) whole cell lysates.



RCBTB1 (G-2): sc-377341. Western blot analysis of RCBTB1 expression in TT (A) and A549 (B) whole cell lysates.

### 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](http://www.scbt.com) for detailed protocols and support products.