

RBCK1 (h2): 293T Lysate: sc-110821

BACKGROUND

The RING finger motif is a specialized DNA-binding zinc finger domain found in many transcriptional regulatory proteins. RBCK protein, interacting with PKC 1 (RBCK1), a member of the RING-IBR protein family, interacts with β -I-type (PRKCB1) and Z-type protein kinase C (PRKCZ) as well as UBE2L3, and has a new type of RING-B-box-coiled-coil (RBCC) region. RBCK1 can form homodimers *in vitro* and is a transcription factor with both transcriptional and DNA-binding activities that are unlike other RBCC family proteins. RBCK1 shuttles between the cytoplasm and nucleus and possesses nuclear export and localization signals within its amino acid sequence. It may function as an E3 ubiquitin-protein ligase or as a part of the E3 complex, which accepts ubiquitin from E2 ubiquitin-conjugating enzymes, such as UBE2L3/UBCM4, and then transfers ubiquitin to substrates.

REFERENCES

1. Tokunaga, C., Kuroda, S., Tatematsu, K., Nakagawa, N., Ono, Y. and Kikkawa, U. 1998. Molecular cloning and characterization of a novel protein kinase C-interacting protein with structural motifs related to RBCC family proteins. *Biochem. Biophys. Res. Commun.* 244: 353-359.
2. Tatematsu, K., Tokunaga, C., Nakagawa, N., Tanizawa, K., Kuroda, S. and Kikkawa, U. 1998. Transcriptional activity of RBCK1 protein (RBCC protein interacting with PKC 1): requirement of RING finger and B-box motifs and regulation by protein kinases. *Biochem. Biophys. Res. Commun.* 247: 392-396.
3. Tokunaga, C., Tatematsu, K., Kuroda, S., Nakagawa, N. and Kikkawa, U. 1998. Molecular cloning and characterization of RBCK2, a splicing variant of a RBCC family protein, RBCK1. *FEBS Lett.* 435: 11-15.
4. Tatematsu, K., Yoshimoto, N., Koyanagi, T., Tokunaga, C., Tachibana, T., Yoneda, Y., Yoshida, M., Okajima, T., Tanizawa, K. and Kuroda, S. 2005. Nuclear-cytoplasmic shuttling of a RING-IBR protein RBCK1 and its functional interaction with nuclear body proteins. *J. Biol. Chem.* 280: 22937-22944.
5. Yoshimoto, N., Tatematsu, K., Koyanagi, T., Okajima, T., Tanizawa, K. and Kuroda, S. 2005. Cytoplasmic tethering of a RING protein RBCK1 by its splice variant lacking the RING domain. *Biochem. Biophys. Res. Commun.* 335: 550-557.

CHROMOSOMAL LOCATION

Genetic locus: RBCK1 (human) mapping to 20p13.

PRODUCT

RBCK1 (h2): 293T Lysate represents a lysate of human RBCK1 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

RBCK1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive RBCK1 antibodies. Recommended use: 10-20 μ l per lane.

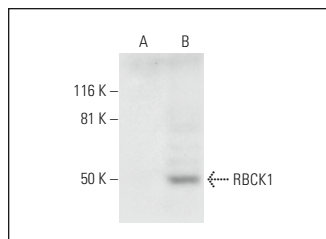
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RBCK1 (H-1): sc-393754 is recommended as a positive control antibody for Western Blot analysis of enhanced human RBCK1 expression in RBCK1 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



RBCK1 (H-1): sc-393754. Western blot analysis of RBCK1 expression in non-transfected: sc-110760 (A) and human RBCK1 transfected: sc-110821 (B) 293 whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.