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RCK (h): 293T Lysate: sc-117056

BACKGROUND

RCK, also known as DDX6 and P54, is a member of the DEAD-box RNA helicase family of proteins, all of which share common protein motifs. Found in most tissues, RCK is an unwindase that exhibits ATP-dependent RNA unwinding activity, as well as the ability to decay RNA in the 5'-3' direction. In non-malignant cells, RCK is associated with all processes of normal RNA metabolism including splicing, export and translation initiation. Mutations in the gene encoding RCK can cause the protein to be overexpressed, changing its function to that of an oncogene that positively regulates the expression of genes involved in cell growth and proliferation. It is believed that, through its unwindase activity, the main function of RCK is to downregulate mRNA expression and maintain normal transcriptional levels within the cell.

REFERENCES

1. Akao, Y., Marukawa, O., Morikawa, H., Nakao, K., Kamei, M., Hachiya, T. and Tsujimoto, Y. 1995. The RCK/p54 candidate proto-oncogene product is a 54 kDa DEAD box protein differentially expressed in human and mouse tissues. *Cancer Res.* 55: 3444-3449.
2. Akiyama, K., Akao, Y., Yokoyama, M., Nakagawa, Y., Noguchi, T., Yagi, K. and Nishi, Y. 1999. Expression of two DEAD box genes (DDX1 and DDX6) is independent of that of MYCN in human neuroblastoma cell lines. *Biochem. Mol. Biol. Int.* 47: 563-568.
3. Smillie, D.A. and Sommerville, J. 2002. RNA helicase p54 (DDX6) is a shuttling protein involved in nuclear assembly of stored mRNP particles. *J. Cell Sci.* 115: 395-407.
4. Akao, Y., Yoshida, H., Matsumoto, K., Matsui, T., Hogetu, K., Tanaka, N. and Usukura, J. 2003. A tumour-associated DEAD-box protein, RCK/p54 exhibits RNA unwinding activity toward c-Myc RNAs *in vitro*. *Genes Cells* 8: 671-676.
5. Matsumoto, K., Kwon, O.Y., Kim, H. and Akao, Y. 2005. Expression of RCK/p54, a DEAD-box RNA helicase, in gametogenesis and early embryogenesis of mice. *Dev. Dyn.* 233: 1149-1156.
6. Matsui, T., Hogetsu, K., Usukura, J., Sato, T., Kumasaka, T., Akao, Y. and Tanaka, N. 2006. Structural insight of human DEAD-box protein RCK/p54 into its substrate recognition with conformational changes. *Genes Cells* 11: 439-452.
7. Chu, C.Y. and Rana, T.M. 2006. Translation repression in human cells by microRNA-induced gene silencing requires RCK/p54. *PLoS Biol.* 4: e210.
8. Akao, Y., Matsumoto, K., Ohguchi, K., Nakagawa, Y. and Yoshida, H. 2006. Human DEAD-box/RNA unwindase RCK/p54 contributes to maintenance of cell growth by affecting cell cycle in cultured cells. *Int. J. Oncol.* 29: 41-48.
9. Alves-Rodrigues, I., Mas, A. and Díez, J. 2007. *Xenopus* Xp54 and human RCK/p54 helicases functionally replace yeast Dhh1p in bromo mosaic virus RNA replication. *J. Virol.* 81: 4378-4380.

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.

CHROMOSOMAL LOCATION

Genetic locus: DDX6 (human) mapping to 11q23.3.

PRODUCT

RCK (h): 293T Lysate represents a lysate of human RCK transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RCK (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive RCK antibodies. Recommended use: 10-20 µl per lane.

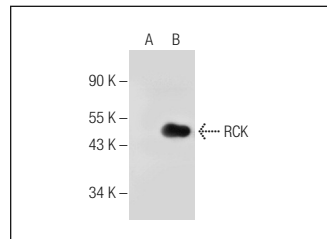
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RCK (E-12): sc-376433 is recommended as a positive control antibody for Western Blot analysis of enhanced human RCK expression in RCK transfected 293T 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-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.

DATA



RCK (E-12): sc-376433. Western blot analysis of RCK expression in non-transfected: sc-117752 (A) and human RCK transfected: sc-117056 (B) 293T whole cell lysates.

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.