

RBQ-3 (H-269): sc-98551

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. RBQ-3, also known as RBBP5 (retinoblastoma binding protein 5) or SWD1, is a 538 amino acid protein that localizes to the nucleus and contains 6 WD repeats. Expressed ubiquitously, RBQ-3 functions as a component of the Set1 complex and preferentially binds to underphosphorylated forms of the retinoblastoma (Rb) protein, possibly playing a role in the regulation of cell proliferation. RBQ-3 exists as two alternatively spliced isoforms and, upon DNA damage, is subject to phosphorylation by ATM or ATR.

REFERENCES

1. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. *FEBS Lett.* 307: 131-134.
2. Neer, E.J., Schmidt, C.J., Nambudripad, R. and Smith, T.F. 1994. The ancient regulatory-protein family of WD-repeat proteins. *Nature* 371: 297-300.
3. Saijo, M., Sakai, Y., Kishino, T., Niikawa, N., Matsuura, Y., Morino, K., Tamai, K. and Taya, Y. 1995. Molecular cloning of a human protein that binds to the retinoblastoma protein and chromosomal mapping. *Genomics* 27: 511-519.
4. Smith, T.F., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.
5. Li, D. and Roberts, R. 2001. WD-repeat proteins: structure characteristics, biological function, and their involvement in human diseases. *Cell. Mol. Life Sci.* 58: 2085-2097.
6. Higa, L.A., Wu, M., Ye, T., Kobayashi, R., Sun, H. and Zhang, H. 2006. CUL-4-DDB1 ubiquitin ligase interacts with multiple WD40-repeat proteins and regulates histone methylation. *Nat. Cell Biol.* 8: 1277-1283.
7. Lee, J.H., Tate, C.M., You, J.S. and Skalnik, D.G. 2007. Identification and characterization of the human Set1B Histone H3-Lys4 methyltransferase complex. *J. Biol. Chem.* 282: 13419-13428.
8. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 600697. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RBBP5 (human) mapping to 1q32.1; Rbbp5 (mouse) mapping to 1 E4.

SOURCE

RBQ-3 (H-269) is a rabbit polyclonal antibody raised against amino acids 270-538 mapping at the C-terminus of RBQ-3 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RBQ-3 (H-269) is recommended for detection of RBQ-3 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).

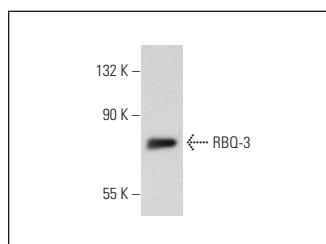
RBQ-3 (H-269) is also recommended for detection of RBQ-3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RBQ-3 siRNA (h): sc-76373, RBQ-3 siRNA (m): sc-76374, RBQ-3 shRNA Plasmid (h): sc-76373-SH, RBQ-3 shRNA Plasmid (m): sc-76374-SH, RBQ-3 shRNA (h) Lentiviral Particles: sc-76373-V and RBQ-3 shRNA (m) Lentiviral Particles: sc-76374-V.

Molecular Weight of RBQ-3: 66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

DATA



RBQ-3 (H-269): sc-98551. Western blot analysis of RBQ-3 expression in HeLa whole cell lysate.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **RBQ-3 (F-7): sc-271072** or **RBQ-3 (D-6): sc-271071**, our highly recommended monoclonal alternatives to RBQ-3 (H-269).