

RBQ-3 (F-7): sc-271072

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 six 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., et al. 1992. The WD-40 repeat. FEBS Lett. 307: 131-134.
2. Neer, E.J., et al. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
3. Saijo, M., et al. 1995. Molecular cloning of a human protein that binds to the retinoblastoma protein and chromosomal mapping. Genomics 27: 511-519.
4. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
5. Li, D., et al. 2001. WD-repeat proteins: structure characteristics, biological function, and their involvement in human diseases. Cell. Mol. Life Sci. 58: 2085-2097.

CHROMOSOMAL LOCATION

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

SOURCE

RBQ-3 (F-7) is a mouse monoclonal antibody raised against amino acids 270-538 mapping at the C-terminus of RBQ-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RBQ-3 (F-7) is available conjugated to agarose (sc-271072 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271072 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271072 PE), fluorescein (sc-271072 FITC), Alexa Fluor® 488 (sc-271072 AF488), Alexa Fluor® 546 (sc-271072 AF546), Alexa Fluor® 594 (sc-271072 AF594) or Alexa Fluor® 647 (sc-271072 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271072 AF680) or Alexa Fluor® 790 (sc-271072 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

RBQ-3 (F-7) is recommended for detection of RBQ-3 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), immunohistochemistry (including paraffin-embedded sections) (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 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.

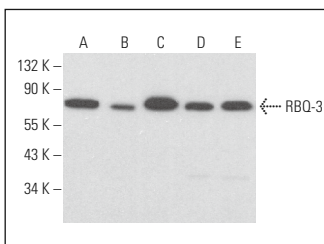
Molecular Weight of RBQ-3: 66 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HEL 92.1.7 cell lysate: sc-2270 or c4 whole cell lysate: sc-364186.

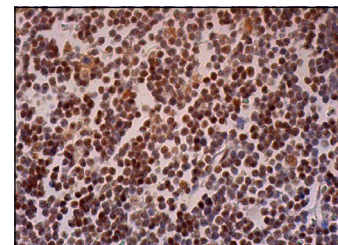
RECOMMENDED SUPPORT REAGENTS

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. 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RBQ-3 (F-7): sc-271072. Western blot analysis of RBQ-3 expression in Hep G2 (A), c4 (B), HEL 92.1.7 (C), L6 (D) and C2C12 (E) whole cell lysates.



RBQ-3 (F-7): sc-271072. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in germinal centers and cells in non-germinal centers.

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.