

Rbx1 (N-16): sc-5201

BACKGROUND

Rbx1 (also designated ROC1 and Hrt1) and the closely related protein Rbx2 (also designated ROC2) are RING finger containing homologs of the yeast protein APC11, a member of the anaphase-promoting complex (APC). Rbx1 was shown to be a component of the von Hippel-Lindau (VHL) transcription elongation complex, which includes VHL, Elongin B, Elongin C and cullin-2. Rbx1 interacts with cullin-1 in the SCF (Skp1-Cdc53-F-box protein) ubiquitin ligase complex. Rbx1 functions as a common subunit of SCF complexes required for ubiquitination of various proteins including yeast G₁ cyclins, IκB-α and β-catenin. Rbx1 was shown to enhance the ubiquitin ligase activity of the VHL/cullin-2 complex, and of the SCF/cullin-1 complex.

REFERENCES

1. Kamura, T., et al. 1999. Rbx1, a component of the VHL tumor suppressor complex and SCF ubiquitin ligase. *Science* 284: 657-661.
2. Tan, P., et al. 1999. Recruitment of a ROC1-CUL1 ubiquitin ligase by Skp1 and HOS to catalyze the ubiquitination of IκB-α. *Mol. Cell* 3: 527-533.
3. Ohta, T., et al. 1999. ROC1, a homolog of APC11, represents a family of cullin partners with an associated ubiquitin ligase activity. *Mol. Cell* 3: 535-541.
4. Seol, J.H., et al. 1999. Cdc53/cullin and the essential Hrt1 RING-H2 subunit of SCF define a ubiquitin ligase module that activates the E2 enzyme Cdc34. *Genes Dev.* 13: 1614-1626.
5. Iwai, K., et al. 1999. Identification of the von hippel-lindau tumor-suppressor protein as part of an active E3 ubiquitin ligase complex. *Proc. Natl. Acad. Sci. USA* 96: 12436-12441.
6. Kamura, T., et al. 2001. Muf1, a novel Elongin BC-interacting leucine-rich repeat protein that can assemble with Cul5 and Rbx1 to reconstitute a ubiquitin ligase. *J. Biol. Chem.* 276: 29748-29753.
7. Brower, C.S., et al. 2002. Mammalian mediator subunit mMED8 is an Elongin BC-interacting protein that can assemble with Cul2 and Rbx1 to reconstitute a ubiquitin ligase. *Proc. Natl. Acad. Sci. USA* 99: 10353-10358.

CHROMOSOMAL LOCATION

Genetic locus: RBX1 (human) mapping to 22q13.2; Rbx1 (mouse) mapping to 15 E1.

SOURCE

Rbx1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Rbx1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-5201 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rbx1 (N-16) is recommended for detection of Rbx1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Rbx1 (N-16) is also recommended for detection of Rbx1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Rbx1 siRNA (h): sc-44072, Rbx1 siRNA (m): sc-152766, Rbx1 shRNA Plasmid (h): sc-44072-SH, Rbx1 shRNA Plasmid (m): sc-152766-SH, Rbx1 shRNA (h) Lentiviral Particles: sc-44072-V and Rbx1 shRNA (m) Lentiviral Particles: sc-152766-V.

Molecular Weight of Rbx1: 17 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Marconett, C.N., et al. 2010. Indole-3-carbinol triggers aryl hydrocarbon receptor-dependent estrogen receptor (ER)α protein degradation in breast cancer cells disrupting an ERα-GATA3 transcriptional cross-regulatory loop. *Mol. Biol. Cell* 21: 1166-1177.

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 or our catalog for detailed protocols and support products.



Try **Rbx1 (E-11): sc-393640**, our highly recommended monoclonal alternative to Rbx1 (N-16).