

Rbx1 (E-11): sc-393640

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, I κ B 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.

CHROMOSOMAL LOCATION

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

SOURCE

Rbx1 (E-11) is a mouse monoclonal antibody raised against amino acids 44-108 mapping at the C-terminus of Rbx1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rbx1 (E-11) is available conjugated to agarose (sc-393640 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393640 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393640 PE), fluorescein (sc-393640 FITC), Alexa Fluor® 488 (sc-393640 AF488), Alexa Fluor® 546 (sc-393640 AF546), Alexa Fluor® 594 (sc-393640 AF594) or Alexa Fluor® 647 (sc-393640 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393640 AF680) or Alexa Fluor® 790 (sc-393640 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Rbx1 (E-11) is recommended for detection of Rbx1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 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.

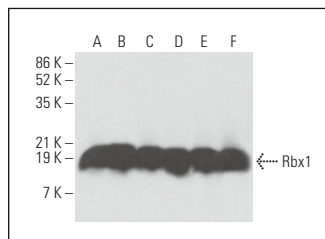
Molecular Weight of Rbx1: 17 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or HT-1080 whole cell lysate: sc-364183.

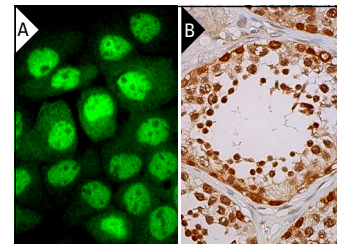
STORAGE

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

DATA



Rbx1 (E-11): sc-393640. Western blot analysis of Rbx1 expression in MCF7 (A), HeLa (B), HT-1080 (C), HCT-116 (D), A549 (E) and RAW 264.7 (F) whole cell lysates.



Rbx1 (E-11): sc-393640. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts (B).

SELECT PRODUCT CITATIONS

- Yamada, T., et al. 2018. Mitochondrial stasis reveals p62-mediated ubiquitination in Parkin-independent mitophagy and mitigates nonalcoholic fatty liver disease. *Cell Metab.* 28: 588-604.e5.
- Mukhopadhyay, U., et al. 2019. Biphasic regulation of RNA interference during rotavirus infection by modulation of Argonaute2. *Cell. Microbiol.* 21: e13101.
- Kido, K., et al. 2020. AirlD, a novel proximity biotinylation enzyme, for analysis of protein-protein interactions. *Elife* 9: e54983.
- Han, X.R., et al. 2020. CRL4^{DCAF1/VprBP} E3 ubiquitin ligase controls ribosome biogenesis, cell proliferation, and development. *Sci. Adv.* 6: eabd6078.
- Yamanaka, S., et al. 2021. Thalidomide and its metabolite 5-hydroxy-thalidomide induce teratogenicity via the cereblon neosubstrate PLZF. *EMBO J.* 40: e105375.
- Yamada, A., et al. 2021. FBXO2/SCF ubiquitin ligase complex directs xenophagy through recognizing bacterial surface glycan. *EMBO Rep.* 22: e52584.
- Zhi, F., et al. 2023. NLRP6 potentiates PI3K/AKT signalling by promoting autophagic degradation of p85 α to drive tumorigenesis. *Nat. Commun.* 14: 6069.
- Wang, T., et al. 2024. TRAF2 associates with cullin neddylation complex assembly. *FEBS J.* 291: 4473-4488.
- Chang, Y., et al. 2024. The UBE2F-CRL5^{ASB11}-DIRAS2 axis is an oncogene and tumor suppressor cascade in pancreatic cancer cells. *Dev. Cell* 59: 1317-1332.e5.

RESEARCH USE

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