

Product datasheet for R1519

ROC1 (RBX1) (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IP, WB
Recommended Dilution:	This antibody reacts with human ROC1 by Western blot (1:500-1:1,000) and Immunoprecipitation. The antibody immunoprecipitates in vitro translated protein and protein from overexpressing cell lysates (using HeLa and NIH-3T3, and others). Coimmunoprecipitation of related cullin proteins does occur. Coimmunoprecipitation of ubiquitin ligase activity will also occur. A 12.2 kDa band corresponding to human ROC1 is detected. Most cell lines expressing ROC1 can be used as a positive control.
Reactivity:	C. elegans, Human, Mouse, Zebrafish
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 94-108 of Human ROC1 (C-terminal) coupled to KLH.
Specificity:	This product is monospecific antiserum processed by delipidation and defibrination followed by sterile filtration. This product reacts with human, mouse, C. elegans and zebra fish ROC1. Cross reactivity may also occur with ROC1 from other sources. Sufficient sequence differences exist to suggest that this antibody would not react with other RING box proteins such as ROC2 and APC11.
Formulation:	State: Serum State: Liquid (sterile filtered) with 0.01% (w/v) Sodium Azide as preservative.
Concentration:	lot specific
Purification:	Delipidation and defibrination.
Conjugation:	Unconjugated
Storage:	Store vial at -20°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20°C or below. Avoid cycles of freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	ring-box 1



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Database Link: [Entrez Gene 9978 Human P62877](#)

Background: ROC1 also known as RING-box protein 1, Rbx1, Regulator of cullins 1, RING finger protein 75, and ZYP protein, is a component of the SCF (SKP1-CUL1-F-box protein) and the CBC(VHL) (CUL2-elongin BC-VHL) E3 ubiquitin ligase complexes, which mediate the ubiquitination and subsequent proteasomal degradation of target proteins involved in cell cycle progression, signal transduction and transcription. ROC1 appears to recruit the E2 ubiquitination enzyme through the RING-type zinc finger in a manner similar to CDC34, and brings it into close proximity to the substrate. The RING-type zinc finger domain is essential for ubiquitin ligase activity. ROC1 probably also stimulates CDC34 autoubiquitination and promotes the neddylation of CUL1 and probably CUL2. ROC1 has a cytoplasmic and nuclear localization and is widely expressed in most tissues.

Synonyms: Protein ZYP, ROC1

Product images:

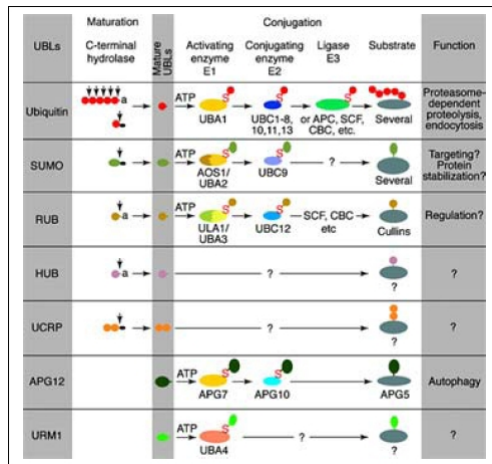


Figure 1. Conjugation pathways for ubiquitin and ubiquitin-like modifiers (UBLs). Most modifiers mature by proteolytic processing from inactive precursors (a; amino acid). Arrowheads point to the cleavage sites. Ubiquitin is expressed either as polyubiquitin or as a fusion with ribosomal proteins. Conjugation requires activating (E1) and conjugating (E2) enzymes that form thioesters (S) with the modifiers. Modification of cullins by RUB involves SCF (SKP1/cullin-1/F-box protein) /CBC (cullin-2/elongin B/elonginC) -like E3 enzymes that are also involved in ubiquitination. In contrast to ubiquitin, the UBLs do not seem to form multi-UBL chains. UCRP (ISG15) resembles two ubiquitin moieties linked head-to-tail. Whether HUB1 functions as a modifier is currently unclear. APG12 and URM1 are distinct from the other modifiers because they are unrelated in sequence to ubiquitin. Data contributed by S.Jentsch, see references above.