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Anti-ROC2 (C-terminal specific) (RABBIT) Antibody

ROC2 Antibody
Catalog # ASR3727

Specification

Anti-ROC2 (C-terminal specific) (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Polyclonal**
Application	**WB, IHC, E, IP, I, LCI**
Application Note	**This antibody reacts with human ROC2 by western blot 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 proteins does occur. A 12.6 kDa band corresponding to human ROC2 is detected. Most cell lines expressing ROC2 can be used as a positive control. Researchers should determine optimal titers for other applications.**
Physical State	**Liquid (sterile filtered)**
Immunogen	**This antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 102-113 of Human ROC2 (C-terminal) coupled to KLH.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-ROC2 (C-terminal specific) (RABBIT) Antibody - Additional Information

Gene ID 9616

Other Names
9616

Purity
This product is monospecific antiserum processed by delipidation and defibrination followed by sterile filtration. This product reacts with human, mouse, C.elgans and zebra fish ROC2. Cross reactivity may also occur with ROC2 from other sources. Sufficient sequence differences exist to suggest that this antibody would not react with other RING box proteins such as ROC1 and APC11.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted

liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-ROC2 (C-terminal specific) (RABBIT) Antibody - Protein Information

Name RNF7 (HGNC:10070)

Function
Catalytic component of multiple cullin-5-RING E3 ubiquitin- protein ligase complexes (ECS complexes), which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:21980433, PubMed:33268465, PubMed:38418882, PubMed:38574733, PubMed:35512830). It is thereby involved in various biological processes, such as cell cycle progression, signal transduction and transcription (PubMed:21980433, PubMed:33268465, PubMed:38418882, PubMed:38574733). The functional specificity of the E3 ubiquitin-protein ligase ECS complexes depend on the variable SOCS box- containing substrate recognition component (PubMed:21980433, PubMed:33268465). Within ECS complexes, RNF7/RBX2 recruits the E2 ubiquitination enzyme to the complex via its RING-type and brings it into close proximity to the substrate (PubMed:34518685). Catalytic subunit of various SOCS-containing ECS complexes, such as the ECS(SOCS7) complex, that regulate reelin signaling by mediating ubiquitination and degradation of DAB1 (By similarity). The ECS(SOCS2) complex mediates the ubiquitination and subsequent proteasomal degradation of phosphorylated EPOR and GHR (PubMed:21980433, PubMed:25505247). Promotes ubiquitination and degradation of NF1, thereby regulating Ras protein signal transduction (By similarity). As part of the ECS(ASB9) complex, catalyzes ubiquitination and degradation of CKB (PubMed:33268465). The ECS(SPSB3) complex catalyzes ubiquitination of nuclear CGAS (PubMed:38418882). As part of the ECS(RAB40C) complex, mediates ANKRD28 ubiquitination and degradation, thereby inhibiting protein phosphatase 6 (PP6) complex activity and focal adhesion assembly during cell migration (PubMed:35512830). As part of some ECS complex, catalyzes 'Lys-11'-linked ubiquitination and degradation of BTRC (PubMed:27910872). ECS complexes and ARIH2 collaborate in tandem to mediate ubiquitination of target proteins; ARIH2 mediating addition of the first ubiquitin on CRLs targets (PubMed:34518685, PubMed:38418882). Specifically catalyzes the neddylation of CUL5 via its interaction with UBE2F (PubMed:19250909). Does not catalyze neddylation of other cullins (CUL1, CUL2, CUL3, CUL4A or CUL4B) (PubMed:19250909). May play a role in protecting cells from apoptosis induced by redox agents (PubMed:<a

href="http://www.uniprot.org/citations/10082581" target="_blank">10082581).

Cellular Location
Cytoplasm. Nucleus

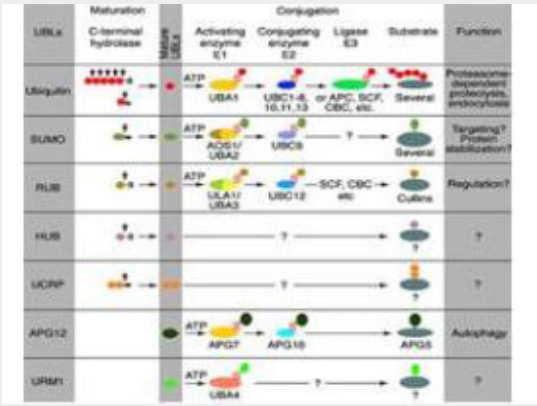
Tissue Location
Expressed in heart, liver, skeletal muscle and pancreas. At very low levels expressed in brain, placenta and lung

Anti-ROC2 (C-terminal specific) (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-ROC2 (C-terminal specific) (RABBIT) Antibody - Images



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 thiolesters (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.

Anti-ROC2 (C-terminal specific) (RABBIT) Antibody - Background

ROC2 also known as RING-box protein 2, Rbx2, RING finger protein 7, Regulator of cullins 2, CKII beta-binding protein 1, and CKBBP1, is a probable component of the SCF (SKP1-CUL1-F-box protein) E3 ubiquitin ligase complexes, which mediate the ubiquitination and subsequent proteasomal degradation of target proteins involved in cell cycle progression, signal transduction and transcription. ROC2 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. ROC2 may play a role in protecting cells from apoptosis induced by redox agents. ROC2 has a cytoplasmic and nuclear localization and is expressed in heart, liver, skeletal muscle and pancreas tissues, and at very low levels in brain, placenta and lung. 1,10-phenanthroline induces ROC2 expression. The RING-type zinc finger domain is essential for ubiquitin ligase activity. Phosphorylation by CK2 is required for efficient degradation of NFKBIA and CDKN1B.