

UBR4 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56557

Specification

UBR4 Polyclonal Antibody - Product Information

Application WB, IHC-P, IHC-F, IF, ICC, E

Primary Accession
Reactivity
Rat
Host
Clonality
Calculated MW

O5T4S7
Rat
Rabbit
Polyclonal
574 KDa

Immunogen KLH conjugated synthetic peptide derived

Liquid

from human UBR4 3001-3200/5183

IgG

Epitope Specificity

Physical State

Isotype **Purity**

affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Membrane Curated; Multi-pass membrane

protein; Cytoplasm; cytoskeleton; Nucleus

SIMILARITY Belongs to the UBR4 family.

SUBUNIT Interacts with RB1 and calmodulin.

Interacts with protein E7 from papilloma

virus HPV-16, HPV-6B and HPV-11.

Important Note This product as supplied is intended for

research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

The protein encoded by this gene is an E3 ubiquitin-protein ligase that interacts with the retinoblastoma-associated protein in the nucleus and with calcium-bound calmodulin in the cytoplasm. The encoded protein appears to be a cytoskeletal component in the cytoplasm and part of the chromatin scaffold in the nucleus. In addition, this protein is a target of the human papillomavirus type 16 E7 oncoprotein. [provided by RefSeq, Aug 2010]

UBR4 Polyclonal Antibody - Additional Information

Gene ID 23352

Other Names

E3 ubiquitin-protein ligase UBR4, 2.3.2.27, 600 kDa retinoblastoma protein-associated factor, N-recognin-4, RING-type E3 ubiquitin transferase UBR4, Retinoblastoma-associated factor of 600 kDa, RBAF600, p600, Zinc finger UBR1-type protein 1, UBR4, KIAA0462, KIAA1307, RBAF600, ZUBR1

Dilution



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<span class ="dilution_WB">WB~~1:1000</span><br \><span class
="dilution_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution_IF">IF~~1:50~200</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_ICC">ICC~~N/A</span>
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Storage

Store at -20 $^{\circ}$ C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 $^{\circ}$ C.

UBR4 Polyclonal Antibody - Protein Information

Name UBR4 {ECO:0000303|PubMed:35032865, ECO:0000312|HGNC:HGNC:30313}

Function

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E3 ubiquitin-protein ligase involved in different protein quality control pathways in the cytoplasm
(PubMed:<a href="http://www.uniprot.org/citations/25582440" target=" blank">25582440</a>,
PubMed:<a href="http://www.uniprot.org/citations/29033132" target=" blank">29033132</a>,
PubMed: <a href="http://www.uniprot.org/citations/34893540" target="blank">34893540</a>,
PubMed:<a href="http://www.uniprot.org/citations/37891180" target="_blank">37891180</a>, PubMed:<a href="http://www.uniprot.org/citations/38030679" target="_blank">38030679</a>, PubMed:<a href="http://www.uniprot.org/citations/38030679" target="_blank">38030679</a>,
PubMed:<a href="http://www.uniprot.org/citations/38182926" target="blank">38182926</a>,
PubMed: <a href="http://www.uniprot.org/citations/38297121" target="blank">38297121</a>).
Component of the N-end rule pathway: ubiquitinates proteins bearing specific N-terminal residues
that are destabilizing according to the N-end rule, leading to their degradation (PubMed:<a
href="http://www.uniprot.org/citations/34893540" target="_blank">34893540</a>, PubMed:<a
href="http://www.uniprot.org/citations/37891180" target="blank">37891180</a>, PubMed:<a
href="http://www.uniprot.org/citations/38030679" target="_blank">38030679</a>). Recognizes
both type-1 and type-2 N-degrons, containing positively charged amino acids (Arg, Lys and His)
and bulky and hydrophobic amino acids, respectively (PubMed:<a
href="http://www.uniprot.org/citations/38030679" target=" blank">38030679</a>). Does not
ubiquitinate proteins that are acetylated at the N-terminus (PubMed:<a
href="http://www.uniprot.org/citations/37891180" target=" blank">37891180</a>). Together
with UBR5, part of a cytoplasm protein quality control pathway that prevents protein aggregation
by catalyzing assembly of heterotypic 'Lys-11'-/'Lys-48'- linked branched ubiquitin chains on
aggregated proteins, leading to substrate recognition by the segregase p97/VCP and degradation
by the proteasome: UBR4 probably synthesizes mixed chains containing multiple linkages, while
UBR5 is likely branching multiple 'Lys-48'-linked chains of substrates initially modified (PubMed: <a
href="http://www.uniprot.org/citations/29033132" target=" blank">29033132</a>). Together
with KCMF1, part of a protein quality control pathway that catalyzes ubiquitination and
degradation of proteins that have been oxidized in response to reactive oxygen species (ROS):
recognizes proteins with an Arg-CysO3(H) degron at the N-terminus, and mediates assembly of
heterotypic 'Lys-63'-/'Lys-27'-linked branched ubiquitin chains on oxidized proteins, leading to
their degradation by autophagy (PubMed:<a href="http://www.uniprot.org/citations/34893540"
target=" blank">34893540</a>). Catalytic component of the SIFI complex, a multiprotein
complex required to inhibit the mitochondrial stress response after a specific stress event has
been resolved: ubiquitinates and degrades (1) components of the HRI-mediated signaling of the
integrated stress response, such as DELE1 and EIF2AK1/HRI, as well as (2) unimported
mitochondrial precursors (PubMed:<a href="http://www.uniprot.org/citations/38297121"
target=" blank">38297121</a>). Within the SIFI complex, UBR4 initiates ubiquitin chain that are
further elongated or branched by KCMF1 (PubMed:<a
href="http://www.uniprot.org/citations/38297121" target=" blank">38297121</a>). Mediates
ubiquitination of ACLY, leading to its subsequent degradation (PubMed: <a
href="http://www.uniprot.org/citations/23932781" target=" blank">23932781</a>). Together
with clathrin, forms meshwork structures involved in membrane morphogenesis and cytoskeletal
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organization (PubMed:16214886).

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton. Nucleus {ECO:0000250|UniProtKB:A2AN08}. Note=Localizes to endosomes via its association with calcium-bound calmodulin (By similarity). Concentrates at the leading edge of membrane structures involved in actin motility (PubMed:16214886). {ECO:0000250|UniProtKB:A2AN08, ECO:0000269|PubMed:16214886}

UBR4 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

UBR4 Polyclonal Antibody - Images