

Ubiquilin 4 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20424a

Specification

Ubiquilin 4 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	<u>Q9NRR5</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	63853
Antigen Region	1-30

Ubiquilin 4 Antibody (N-term) - Additional Information

Gene ID 56893

Other Names

Ubiquilin-4, Ataxin-1 interacting ubiquitin-like protein, A1Up, Ataxin-1 ubiquitin-like-interacting protein A1U, Connexin43-interacting protein of 75 kDa, CIP75, UBQLN4, C1orf6, CIP75, UBIN

Target/Specificity

This Ubiquilin 4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human Ubiquilin 4.

Dilution $WB \sim 1:1000$ $E \sim Use at an assay dependent concentration.$

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Ubiquilin 4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Ubiquilin 4 Antibody (N-term) - Protein Information

Name UBQLN4 {ECO:0000303|PubMed:27113755, ECO:0000312|HGNC:HGNC:1237}

Function Regulator of protein degradation that mediates the proteasomal targeting of misfolded,



mislocalized or accumulated proteins (PubMed: 15280365, PubMed: 27113755, PubMed: 29666234, PubMed: 30612738). Acts by binding polyubiquitin chains of target proteins via its UBA domain and by interacting with subunits of the proteasome via its ubiguitin-like domain (PubMed: 15280365, PubMed:27113755, PubMed:30612738). Key regulator of DNA repair that represses homologous recombination repair: in response to DNA damage, recruited to sites of DNA damage following phosphorylation by ATM and acts by binding and removing ubiquitinated MRE11 from damaged chromatin, leading to MRE11 degradation by the proteasome (PubMed: <u>30612738</u>). MRE11 degradation prevents homologous recombination repair, redirecting double-strand break repair toward non-homologous end joining (NHEJ) (PubMed: <u>30612738</u>). Specifically recognizes and binds mislocalized transmembrane-containing proteins and targets them to proteasomal degradation (PubMed:27113755). Collaborates with DESI1/POST in the export of ubiquitinated proteins from the nucleus to the cytoplasm (PubMed: 29666234). Also plays a role in the regulation of the proteasomal degradation of non-ubiquitinated GIA1 (By similarity). Acts as an adapter protein that recruits UBQLN1 to the autophagy machinery (PubMed: 23459205). Mediates the association of UBQLN1 with autophagosomes and the autophagy-related protein LC3 (MAP1LC3A/B/C) and may assist in the maturation of autophagosomes to autolysosomes by mediating autophagosome-lysosome fusion (PubMed:23459205).

Cellular Location

Nucleus. Cytoplasm. Chromosome Endoplasmic reticulum {ECO:0000250|UniProtKB:Q99NB8}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q99NB8}. Cytoplasmic vesicle, autophagosome. Note=Colocalizes with the proteasome, both in nucleus and cytoplasm (PubMed:15280365). Exported from the nucleus following interaction with DESI1/POST (PubMed:29666234). In response to DNA damage and phosphorylation at Ser-318 by ATM, localizes to the nucleus and is recruited to sites of DNA damage (PubMed:30612738).

Tissue Location

Highly expressed in pancreas, kidney, skeletal muscle, heart and throughout the brain, and at lower levels in placenta, lung and liver.

Ubiquilin 4 Antibody (N-term) - Protocols

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

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

Ubiquilin 4 Antibody (N-term) - Images





Ubiquilin 4 Antibody (N-term) (Cat. #AP20424a) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the Ubiquilin 4 antibody detected the Ubiquilin 4 protein (arrow).

Ubiquilin 4 Antibody (N-term) - Background

Plays a role in the regulation of proteasomal protein degradation. Depending on the case, may promote or inhibit proteasomal protein degradation.