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Anti-ATG3 Antibody (aa1-314)

Rabbit Anti Human Polyclonal Antibody

Catalog # ALS18512

Specification

Anti-ATG3 Antibody (aa1-314) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	Q9NT62
Predicted	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**35864**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **E~~N/A**

Anti-ATG3 Antibody (aa1-314) - Additional Information

Gene ID 64422

Alias Symbol **ATG3**

Other Names

ATG3, APG3-LIKE, APG3, APG3L, Autophagy related 3, HApg3, PC3-96, Protein PC3-96, Autophagy-related protein 3

Target/Specificity

Human ATG3

Reconstitution & Storage

Caprylic acid and ammonium sulfate precipitation

Precautions

Anti-ATG3 Antibody (aa1-314) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-ATG3 Antibody (aa1-314) - Protein Information

Name ATG3 (HGNC:20962)

Synonyms APG3, APG3L

Function

E2 conjugating enzyme that catalyzes the covalent conjugation of the C-terminal Gly of ATG8-like proteins (GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A) to the amino group of phosphatidylethanolamine (PE)-containing lipids in the membrane resulting in membrane-bound ATG8-like proteins which is one of the key steps in the development of autophagic isolation membranes during autophagosome formation (PubMed:<a

href="http://www.uniprot.org/citations/24191030" target="_blank">24191030, PubMed:33446636, PubMed:37252361). Cycles back and forth between binding to ATG7 for loading with the ATG8-like proteins and binding to E3 enzyme, composed of ATG12, ATG5 and ATG16L1 to promote ATG8-like proteins lipidation (PubMed:11825910, PubMed:12207896, PubMed:12890687, PubMed:16704426, PubMed:24186333). Also plays a role as a membrane curvature sensor that facilitates LC3/GABARAP lipidation by sensing local membrane stress associated with lipid-packing defects as occurs with high molar proportions of conical lipids or strident membrane curvature (By similarity). Interacts with negatively-charged membranes promoting membrane tethering and enhancing LC3/GABARAP lipidation (PubMed:29142222). Also acts as an autocatalytic E2-like enzyme by catalyzing the conjugation of ATG12 to itself in an ATG7-dependent manner, this complex thus formed, plays a role in mitochondrial homeostasis but not in autophagy (By similarity). ATG12- ATG3 conjugation promotes late endosome to lysosome trafficking and basal autophagosome maturation via its interaction with PDCD6IP (By similarity). ATG12-ATG3 conjugate is also formed upon viccina virus infection, leading to the disruption the cellular autophagy which is not necessary for vaccinia survival and proliferation (By similarity). Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway (By similarity).

Cellular Location
Cytoplasm.

Tissue Location
Widely expressed, with a highest expression in heart, skeletal muscle, kidney, liver and placenta

Anti-ATG3 Antibody (aa1-314) - 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-ATG3 Antibody (aa1-314) - Images