

Anti-ATG16L1 Antibody
Rabbit polyclonal antibody to ATG16L1
Catalog # AP60427

Specification

Anti-ATG16L1 Antibody - Product Information

Application	WB
Primary Accession	O676U5
Other Accession	O8C0J2
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	68265

Anti-ATG16L1 Antibody - Additional Information

Gene ID 55054

Other Names

APG16L; Autophagy-related protein 16-1; APG16-like 1

Target/Specificity

Recognizes endogenous levels of ATG16L1 protein.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-ATG16L1 Antibody - Protein Information

Name ATG16L1 {ECO:0000303|PubMed:17200669, ECO:0000312|HGNC:HGNC:21498}

Function

Plays an essential role in both canonical and non-canonical autophagy: interacts with ATG12-ATG5 to mediate the lipidation to ATG8 family proteins (MAP1LC3A, MAP1LC3B, MAP1LC3C, GABARAPL1, GABARAPL2 and GABARAP) (PubMed: [23376921](http://www.uniprot.org/citations/23376921) target="_blank">23376921, PubMed: [23392225](http://www.uniprot.org/citations/23392225) target="_blank">23392225, PubMed: [24553140](http://www.uniprot.org/citations/24553140) target="_blank">24553140, PubMed: [24954904](http://www.uniprot.org/citations/24954904) target="_blank">24954904, PubMed: [27273576](http://www.uniprot.org/citations/27273576) target="_blank">27273576, PubMed: [29317426](http://www.uniprot.org/citations/29317426) target="_blank">29317426, PubMed: [30778222](http://www.uniprot.org/citations/30778222) target="_blank">30778222)

target="_blank">30778222, PubMed:33909989). Acts as a molecular hub, coordinating autophagy pathways via distinct domains that support either canonical or non-canonical signaling (PubMed:29317426, PubMed:30778222). During canonical autophagy, interacts with ATG12-ATG5 to mediate the conjugation of phosphatidylethanolamine (PE) to ATG8 proteins, to produce a membrane-bound activated form of ATG8 (PubMed:23376921, PubMed:23392225, PubMed:24553140, PubMed:24954904, PubMed:27273576). Thereby, controls the elongation of the nascent autophagosomal membrane (PubMed:23376921, PubMed:23392225, PubMed:24553140, PubMed:24954904, PubMed:27273576). As part of the ATG8 conjugation system with ATG5 and ATG12, required for recruitment of LRRK2 to stressed lysosomes and induction of LRRK2 kinase activity in response to lysosomal stress (By similarity). Also involved in non-canonical autophagy, a parallel pathway involving conjugation of ATG8 proteins to single membranes at endolysosomal compartments, probably by catalyzing conjugation of phosphatidylserine (PS) to ATG8 (PubMed:33909989). Non-canonical autophagy plays a key role in epithelial cells to limit lethal infection by influenza A (IAV) virus (By similarity). Regulates mitochondrial antiviral signaling (MAVS)-dependent type I interferon (IFN-I) production (PubMed:22749352, PubMed:25645662). Negatively regulates NOD1- and NOD2-driven inflammatory cytokine response (PubMed:24238340). Instead, promotes an autophagy-dependent antibacterial pathway together with NOD1 or NOD2 (PubMed:20637199). Plays a role in regulating morphology and function of Paneth cell (PubMed:18849966).

Cellular Location

Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein. Endosome membrane; Peripheral membrane protein. Lysosome membrane; Peripheral membrane protein. Note=Recruited to omegasomes membranes by WIPI2 (By similarity). Omegasomes are endoplasmic reticulum connected structures at the origin of preautophagosomal structures (By similarity) Localized to preautophagosomal structure (PAS) where it is involved in the membrane targeting of ATG5 (By similarity). Localizes also to discrete punctae along the ciliary axoneme (By similarity). Upon activation of non-canonical autophagy, recruited to single-membrane endolysosomal compartments (PubMed:29317426) {ECO:0000250|UniProtKB:Q8C0J2, ECO:0000269|PubMed:29317426}

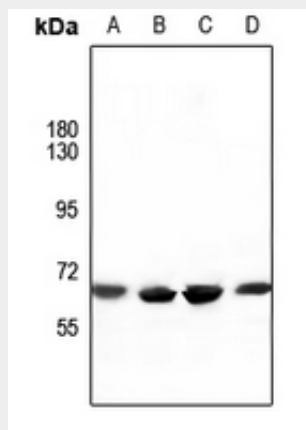
Anti-ATG16L1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ATG16L1 Antibody - Images



Western blot analysis of ATG16L1 expression in HepG2 (A), HCT116 (B), PC3 (C), A549 (D) whole cell lysates.

Anti-ATG16L1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ATG16L1. The exact sequence is proprietary.