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ATG16 Antibody
Catalog # ASC10626

Specification

ATG16 Antibody - Product Information

Application	**WB, ICC, IF**
Primary Accession	Q676U5
Other Accession	NP_110430, 124256480
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**ATG16 antibody can be used for the detection of ATG16 by Western blot at 1 and 2 µg/mL. Antibody can also be used for immunocytochemistry starting at 2 µg/mL. For immunofluorescence start at 4 µg/mL.**

ATG16 Antibody - Additional Information

Gene ID	**55054**

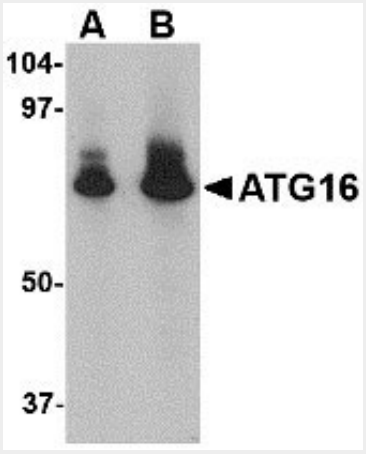
Target/Specificity
ATG16L1;

Reconstitution & Storage
ATG16 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
ATG16 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

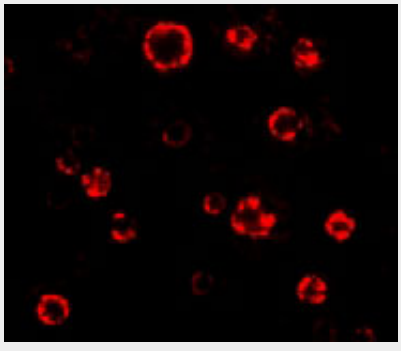
ATG16 Antibody - Protein Information

Name ATG16L1



Western blot analysis of ATG16 in HeLa cell lysate with ATG16 antibody at (A) 1 and (B) 2 µg/mL.

Immunocytochemistry of ATG16 in HeLa cells with ATG16 antibody at 2 µg/mL.



Immunofluorescence of ATG16 in Hela cells with ATG16 antibody at 4.75 µg/mL.

ATG16 Antibody - Background

Synonyms APG16L

Function
Plays an essential role in autophagy: interacts with ATG12- ATG5 to mediate the conjugation of phosphatidylethanolamine (PE) to LC3 (MAP1LC3A, MAP1LC3B or MAP1LC3C), to produce a membrane-bound activated form of LC3 named LC3-II. Thereby, controls the elongation of the nascent autophagosomal membrane (PubMed:24553140, PubMed:23376921, PubMed:24954904, PubMed:27273576, PubMed:23392225). Regulates mitochondrial antiviral signaling (MAVS)-dependent type I interferon (IFN-I) production (PubMed:25645662). Negatively regulates NOD1- and NOD2-driven inflammatory cytokine response (PubMed:24238340). Instead, promotes with NOD2 an autophagy-dependent antibacterial pathway (PubMed:20637199). Plays a role in regulating morphology and function of Paneth cell (PubMed:18849966).

Cellular Location
Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein. Note=Recruited to omegasomes membranes by WIPI2 Omegasomes are endoplasmic reticulum connected strutures at the origin of preautophagosomal structures. Localized to preautophagosomal structure (PAS) where it is involved in the membrane targeting of ATG5 Localizes also to discrete punctae along the ciliary

ATG16 Antibody: Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components. This process is negatively regulated by TOR (Target of rapamycin) through phosphorylation of autophagy protein APG1. ATG16, another member of the autophagy protein family, forms a complex with the ATG5-ATG12 conjugate. This multimeric protein has been shown to be essential for autophagosome formation in both yeast and mammals and targets the ATG5-ATG12 complex to the autophagic isolation membrane during the formation of the autophagosome. Because mammalian ATG16 has seven WD-repeats in its C-terminal domain, it has been suggested that these may form a platform for further protein-protein interactions. Multiple isoforms of ATG16 are known to exist.

ATG16 Antibody - References

Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. Oncogene2004; 23:2891-906.
Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. Carcinogenesis1993; 14:2501-5.
Kamada Y, Funakoshi T, Shintani T, et al. Tor-mediated induction of autophagy via Apg1 protein kinase complex. J. Cell. Biol.2000; 150:1507-13.
Mizushima N, Noda T, and Ohsumi Y. Apg16p is required for the function of the apg12p-apg5p conjugate in the yeast autophagy pathway. EMBO J.1999; 18:3888-96.

axoneme
{ECO:0000250|UniProtKB:Q8C0J2}

ATG16 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