

ATG16L1 Antibody (internal region, near the C-Term)
Peptide-affinity purified goat antibody
Catalog # AF2595a

Specification

ATG16L1 Antibody (internal region, near the C-Term) - Product Information

Application	WB
Primary Accession	Q676U5
Other Accession	NP_110430.5 , NP_060444.3 , 55054
Reactivity	Mouse
Predicted	Human, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	68265

ATG16L1 Antibody (internal region, near the C-Term) - Additional Information

Gene ID 55054

Other Names

Autophagy-related protein 16-1, APG16-like 1, ATG16L1, APG16L

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ATG16L1 Antibody (internal region, near the C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATG16L1 Antibody (internal region, near the C-Term) - 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)

target="_blank">27273576, PubMed:29317426, PubMed: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}

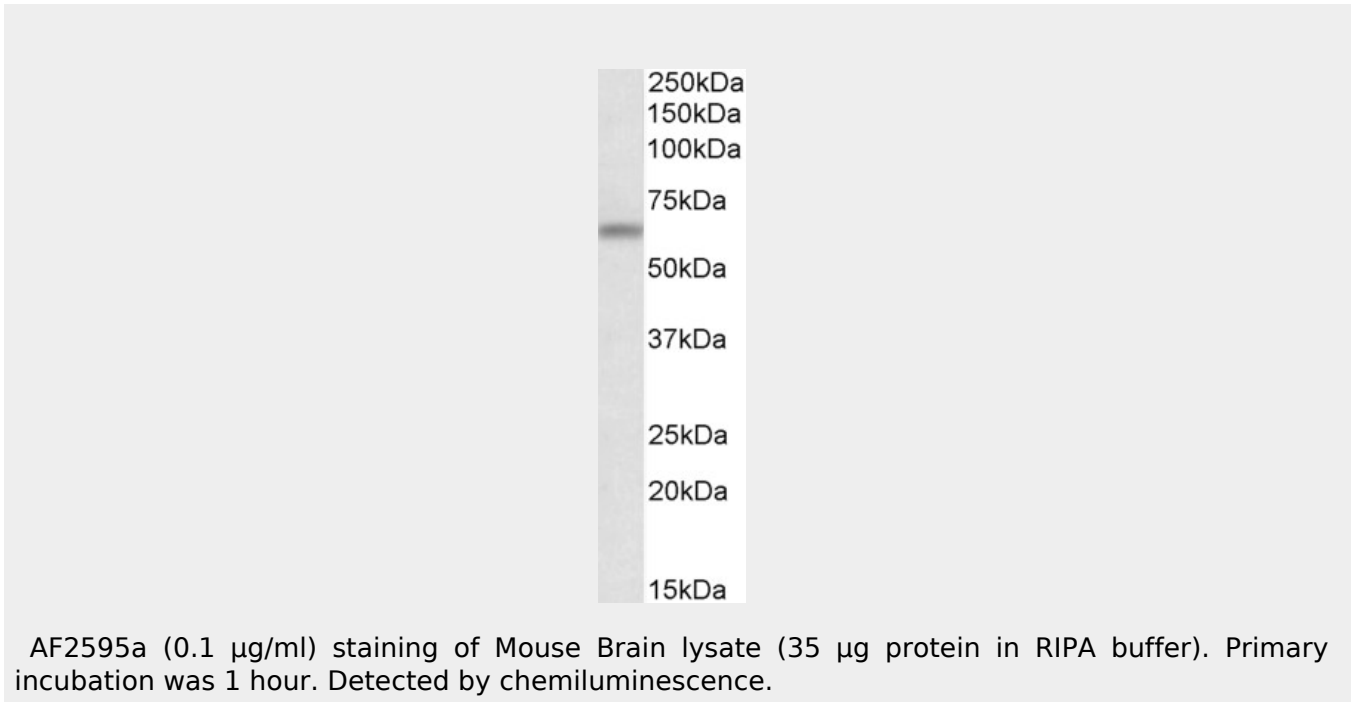
ATG16L1 Antibody (internal region, near the C-Term) - Protocols

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](#)

ATG16L1 Antibody (internal region, near the C-Term) - Images



ATG16L1 Antibody (internal region, near the C-Term) - Background

This antibody is expected to recognise both reported isoforms (NP_110430.5 and NP_060444.3).

ATG16L1 Antibody (internal region, near the C-Term) - References

Genome-wide association study identifies new susceptibility loci for Crohn disease and implicates autophagy in disease pathogenesis. Rioux JD, Xavier RJ, Taylor KD, Silverberg MS, Goyette P, Huett A, Green T, Kuballa P, Barmada MM, Datta LW, Shugart YY, Griffiths AM, Targan SR, Ippoliti AF, Bernard EJ, Mei L, Nicolae DL, Regueiro M, Schumm LP, Steinhardt AH, Rotter JI, Duerr RH, Cho JH, Nat Genet. 2007 May;39(5):596-604. Epub 2007 Apr 15. PMID: 17435756