

ATG18 Rabbit pAb

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Catalog # AP94737

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8R3E3
Reactivity	Rat, Human
Predicted	Pig, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	48758
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse WIPI1
Epitope Specificity	361-446/446
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus, trans-Golgi network. Endosome. Cytoplasmic vesicle, clathrin-coated vesicle. Preautophagosomal structure membrane; Peripheral membrane protein. Cytoplasm, cytoskeleton. Note=Trans elements of the Golgi and peripheral endosomes. Dynamically cycles through these compartments and is susceptible to conditions that modulate membrane flux. Enriched in clathrin-coated vesicles. Upon starvation-induced autophagy, accumulates at subcellular structures in the cytoplasm: enlarged vesicular and lasso-like structures, and large cup-shaped structures predominantly around the nucleus. Recruitment to autophagic membranes is controlled by MTMR14. Labile microtubules specifically recruit markers of autophagosome formation like WIPI1, whereas mature autophagosomes may bind to stable microtubules.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a WD40 repeat protein. Members of the WD40 repeat family are key components of many essential biologic functions. They regulate the assembly of multiprotein complexes by presenting a beta-propeller platform for simultaneous and reversible protein-protein interactions. Members of the WIPI subfamily of WD40 repeat proteins have a 7-bladed propeller structure and contain a conserved motif for interaction with phospholipids. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]

Additional Information

Gene ID	52639
Other Names	WD repeat domain phosphoinositide-interacting protein 1, WIPI-1, WD40

repeat protein interacting with phosphoinositides of 49 kDa, WIPI 49 kDa, Wipi1, D11Ert498e

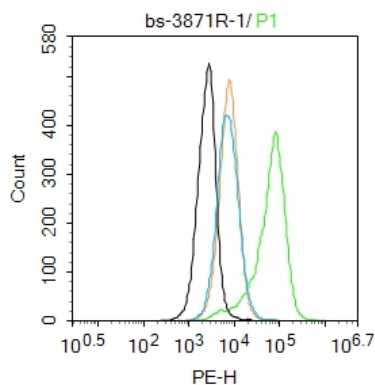
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

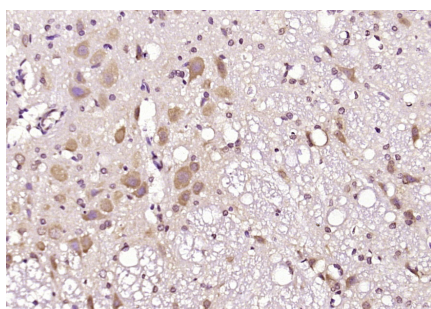
Name	Wipi1
Synonyms	D11Ert498e
Function	Component of the autophagy machinery that controls the major intracellular degradation process by which cytoplasmic materials are packaged into autophagosomes and delivered to lysosomes for degradation (PubMed:22275429). Plays an important role in starvation- and calcium-mediated autophagy, as well as in mitophagy. Functions downstream of the ULK1 and PI3-kinases that produce phosphatidylinositol 3-phosphate (PtdIns3P) on membranes of the endoplasmic reticulum once activated. Binds phosphatidylinositol 3-phosphate (PtdIns3P), and maybe other phosphoinositides including PtdIns3,5P2 and PtdIns5P, and is recruited to phagophore assembly sites at the endoplasmic reticulum membranes. There, it assists WIPI2 in the recruitment of ATG12-ATG5-ATG16L1, a complex that directly controls the elongation of the nascent autophagosomal membrane. Together with WDR45/WIPI4, promotes ATG2 (ATG2A or ATG2B)-mediated lipid transfer by enhancing ATG2-association with phosphatidylinositol 3-monophosphate (PI3P)-containing membranes. Involved in xenophagy of Staphylococcus aureus. Invading S.aureus cells become entrapped in autophagosome-like WIPI1 positive vesicles targeted for lysosomal degradation. Also plays a distinct role in controlling the transcription of melanogenic enzymes and melanosome maturation, a process that is distinct from starvation-induced autophagy. May also regulate the trafficking of proteins involved in the mannose-6- phosphate receptor (MPR) recycling pathway (By similarity).
Cellular Location	Golgi apparatus, trans-Golgi network {ECO:0000250 UniProtKB:Q5MNZ9}. Endosome {ECO:0000250 UniProtKB:Q5MNZ9}. Cytoplasmic vesicle, clathrin-coated vesicle {ECO:0000250 UniProtKB:Q5MNZ9}. Preautophagosomal structure membrane; Peripheral membrane protein. Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:Q5MNZ9}. Note=Trans elements of the Golgi and peripheral endosomes. Dynamically cycles through these compartments and is susceptible to conditions that modulate membrane flux. Enriched in clathrin-coated vesicles. Upon starvation-induced autophagy, accumulates at subcellular structures in the cytoplasm: enlarged vesicular and lasso-like structures, and large cup-shaped structures predominantly around the nucleus. Recruitment to autophagic membranes is controlled by MTMR14. Labile microtubules specifically recruit markers of autophagosome formation like WIPI1, whereas mature autophagosomes may bind to stable microtubules {ECO:0000250 UniProtKB:Q5MNZ9}

Background

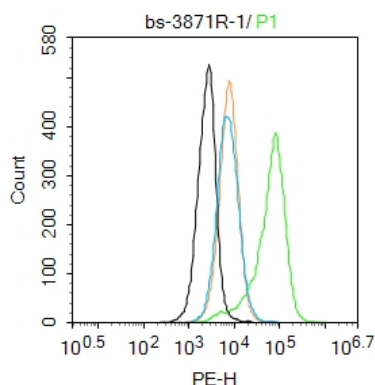
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Blank control:U87MG. Primary Antibody (green line): Rabbit Anti-ATG18 antibody (AP94737) Dilution: 1 μ g /10⁶ cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-PE Dilution: 1 μ g /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1%PBST for 20 min at room temperature.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ATG18) Polyclonal Antibody, Unconjugated (AP94737) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.