

Anti-ATG14L Picoband Antibody
Catalog # ABO12169

Specification

Anti-ATG14L Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	Q6ZNE5
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Beclin 1-associated autophagy-related key regulator (ATG14) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-ATG14L Picoband Antibody - Additional Information

Gene ID 22863

Other Names

Beclin 1-associated autophagy-related key regulator, Barkor, Autophagy-related protein 14-like protein, Atg14L, ATG14 {ECO:0000303|PubMed:18843052}

Calculated MW

55309 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Cytoplasm . Endoplasmic reticulum membrane ; Peripheral membrane protein . Preautophagosomal structure membrane ; Peripheral membrane protein . Cytoplasmic vesicle, autophagosome membrane ; Peripheral membrane protein . Cytosolic under nutrient-rich conditions (PubMed:19050071). Following autophagy stimuli, such as starvation or rapamycin induction, predominantly detected in cytoplasmic foci, identified as isolation membranes and autophagosomes (PubMed:19050071). Accumulates on highly curved PtdIns(3)P enriched autophagic membrane via its BATS domain to sense and maintain membrane curvature (By similarity). Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme (By similarity). .

Protein Name

Beclin 1-associated autophagy-related key regulator

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human ATG14L (70-101aa RDRERFIDKKERLSRLKSKQEEFQKEVLKAME), different from the related mouse and rat sequences by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the ATG14 family.

Anti-ATG14L Picoband Antibody - Protein Information

Name ATG14 {ECO:0000303|PubMed:18843052}

Function

Required for both basal and inducible autophagy. Determines the localization of the autophagy-specific PI3-kinase complex PI3KC3-C1 (PubMed:18843052, PubMed:19050071). Plays a role in autophagosome formation and MAP1LC3/LC3 conjugation to phosphatidylethanolamine (PubMed:19270696, PubMed:20713597). Promotes BECN1 translocation from the trans-Golgi network to autophagosomes (PubMed:20713597). Enhances PIK3C3 activity in a BECN1-dependent manner. Essential for the autophagy-dependent phosphorylation of BECN1 (PubMed:23878393). Stimulates the phosphorylation of BECN1, but suppresses the phosphorylation PIK3C3 by AMPK (PubMed:23878393). Binds to STX17-SNAP29 binary t-SNARE complex on autophagosomes and primes it for VAMP8 interaction to promote autophagosome-endolysosome fusion (PubMed:25686604, PubMed:37632749). Modulates the hepatic lipid metabolism (By similarity).

Cellular Location

Cytoplasm. Endoplasmic reticulum membrane; Peripheral membrane protein. Preautophagosomal structure membrane; Peripheral membrane protein. Cytoplasmic vesicle, autophagosome membrane; Peripheral membrane protein. Note=Cytosolic under nutrient-rich conditions (PubMed:19050071). Following autophagy stimuli, such as starvation or rapamycin induction, predominantly detected in cytoplasmic foci, identified as isolation membranes and autophagosomes (PubMed:19050071). Accumulates on highly curved PtdIns(3)P enriched autophagic membrane via its BATS domain to sense and maintain membrane curvature (By similarity). Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme (By similarity). {ECO:0000250|UniProtKB:Q8CDJ3}

Anti-ATG14L Picoband Antibody - Protocols

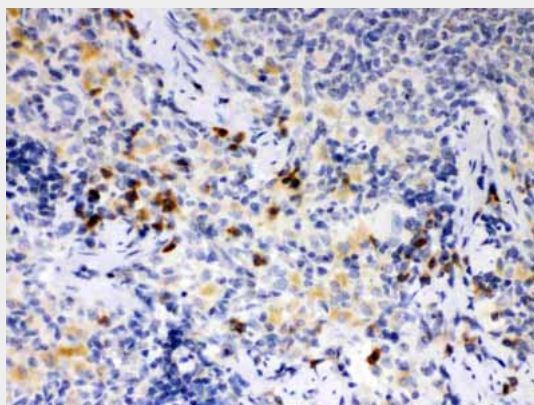
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

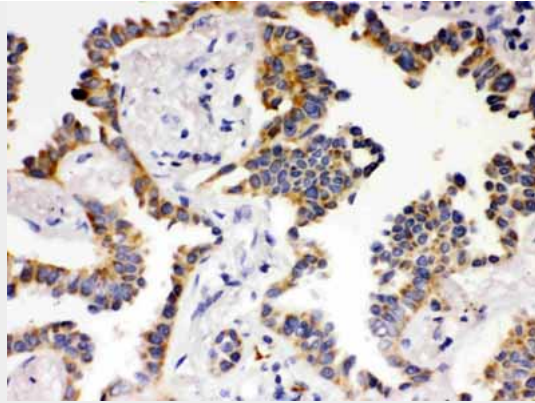
Anti-ATG14L Picoband Antibody - Images



Anti- ATG14L Picoband antibody, ABO12169, Western blotting All lanes: Anti ATG14L (ABO12169) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: HELA Whole Cell Lysate at 40ug Predicted bind size: 59KD Observed bind size: 59KD



Anti- ATG14L Picoband antibody, ABO12169, IHC(P) IHC(P): Rat Spleen Tissue



Anti- ATG14L Picoband antibody, ABO12169, IHC(P)IHC(P): Human Lung Cancer Tissue

Anti-ATG14L Picoband Antibody - Background

ATG14 (also known as beclin-1-associated autophagy-related key regulator (Barkor) or ATG14L), an essential autophagy-specific regulator of the class III phosphatidylinositol 3-kinase complex, promotes membrane tethering of protein-free liposomes, and enhances hemifusion and full fusion of proteoliposomes reconstituted with the target (t)-SNAREs (soluble N-ethylmaleimide-sensitive factor attachment protein receptors) syntaxin 17 (STX17) and SNAP29, and the vesicle (v)-SNARE VAMP8 (vesicle-associated membrane protein 8). ATG14 binds to the SNARE core domain of STX17 through its coiled-coil domain, and stabilizes the STX17-SNAP29 binary t-SNARE complex on autophagosomes.