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ATG14 Antibody (Internal)

Rabbit Polyclonal Antibody

Catalog # ALS15664

Specification

ATG14 Antibody (Internal) - Product Information

Application	**IHC, IF**
Primary Accession	Q6ZNE5
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**55kDa KDa**

ATG14 Antibody (Internal) - Additional Information

Gene ID 22863

Other Names
Beclin 1-associated autophagy-related key regulator, Barkor, Autophagy-related protein 14-like protein, Atg14L, ATG14, KIAA0831

Target/Specificity
Human ATG14. At least three isoforms of ATG14 are known to exist; this antibody will detect all three isoforms.

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
ATG14 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

ATG14 Antibody (Internal) - 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:<a href="http://www.uniprot.org/citations/23878393"

target="_blank">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).

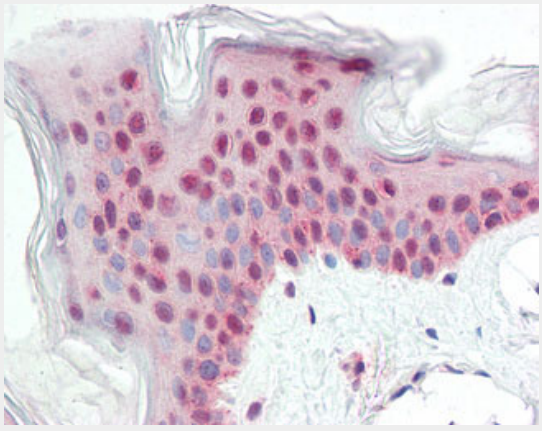
Cellular Location
Cytoplasm. Endoplasmic reticulum membrane; Peripheral membrane protein. Preautophagosomal structure membrane; Peripheral membrane protein. Cytoplasmic vesicle, autophagosome membrane; Peripheral membrane protein. Note=Cytosolic under nutrient-rich conditions (PubMed:19050071). Following 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}

ATG14 Antibody (Internal) - Protocols

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

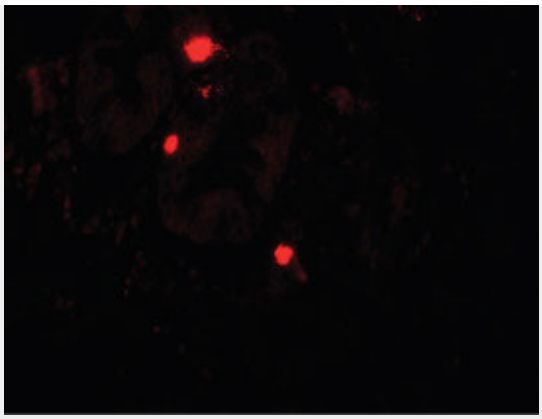
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATG14 Antibody (Internal) - Images



Anti-ATG14 antibody IHC staining of human skin.

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Immunofluorescence of ATG14 in human small intestine tissue with ATG14 antibody at 20 ug/ml.

ATG14 Antibody (Internal) - Background

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ATG14 Antibody (Internal) - References

Nagase T.,et al.DNA Res. 5:355-364(1998).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Heilig R.,et al.Nature 421:601-607(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Itakura E.,et al.Mol. Biol. Cell 19:5360-5372(2008).