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APG5 / ATG5 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS11965

Specification

APG5 / ATG5 Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9H1Y0
Reactivity	**Human, Mouse, Rat, Zebrafish, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**32kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A**

APG5 / ATG5 Antibody - Additional Information

Gene ID 9474

Other Names
Autophagy protein 5, APG5-like, Apoptosis-specific protein, ATG5, APG5L, ASP

Target/Specificity
A portion of amino acid 1-50 of human APG5L

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
APG5 / ATG5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

APG5 / ATG5 Antibody - Protein Information

Name ATG5 (HGNC:589)

Synonyms APG5L, ASP

Function
Involved in autophagic vesicle formation. Conjugation with ATG12, through a ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3- like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures, as well as in normal adipocyte differentiation. Promotes primary ciliogenesis

through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway. As part of the ATG8 conjugation system with ATG12 and ATG16L1, required for recruitment of LRRK2 to stressed lysosomes and induction of LRRK2 kinase activity in response to lysosomal stress (By similarity).

Cellular Location
Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein Note=Colocalizes with nonmuscle actin. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed (By similarity). Also localizes to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme.

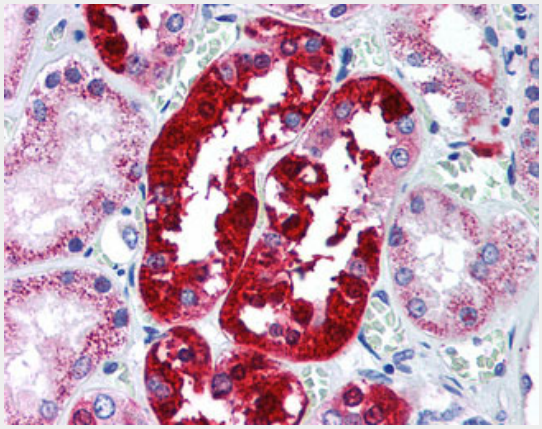
Tissue Location
Ubiquitous. The mRNA is present at similar levels in viable and apoptotic cells, whereas the protein is dramatically highly expressed in apoptotic cells

APG5 / ATG5 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

APG5 / ATG5 Antibody - Images



Anti-ATG5 antibody IHC of human kidney.

APG5 / ATG5 Antibody - Background

Involved in autophagic vesicle formation. Conjugation with ATG12, through a ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. The ATG12- ATG5 conjugate also negatively regulates the innate antiviral immune response by blocking the type I IFN production pathway through direct association with

RARRES3 and MAVS. Also plays a role in translation or delivery of incoming viral RNA to the translation apparatus. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures, as well as in normal adipocyte differentiation. Promotes primary ciliogenesis through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway.

APG5 / ATG5 Antibody - References

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Bechtel S.,et al.BMC Genomics 8:399-399(2007).
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