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ATG5 Antibody

Rabbit mAb
Catalog # AP90767

Product Information

Application	WB, IHC, IF, ICC, IP, IHF
Primary Accession	Q9H1Y0
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	APG 5L; APG5; APG5 autophagy 5 like; APG5 like; APG5-like; Apoptosis specific protein; ASP; ATG 5; ATG5 autophagy related 5 homolog; Autophagy protein 5; hAPG5;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	32447

Additional Information

Dilution	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human ATG5
Description	Required for autophagy. Conjugates to ATG12 and associates with isolation membrane to form cup-shaped isolation membrane and autophagosome. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

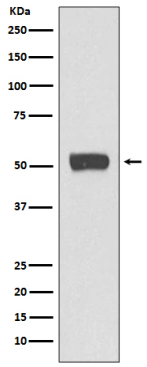
Cellular Location

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. Under starved conditions, the ATG12-ATG5-ATG16L1 complex is translocated to phagophores driven by RAB33B (PubMed:32960676). {ECO:0000250, ECO:0000269|PubMed:32960676}

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

Images



Western blot analysis of ATG5 expression in Raji cell lysate.

Image not found : 202311/AP90767-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human ovarian cancer, using ATG5 Antibody.

Image not found : 202311/AP90767-IF.jpg

Immunofluorescent analysis of Raji cells, using ATG5 Antibody.

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