

# ATG5

Purified Mouse Monoclonal Antibody  
Catalog # AO2600a

## Product Information

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<b>Application</b>	WB, IHC, ICC, E
<b>Primary Accession</b>	<a href="#">Q9H1Y0</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	3C10B6
<b>Isotype</b>	Mouse IgG2b
<b>Calculated MW</b>	32447
<b>Immunogen</b>	Purified recombinant fragment of human ATG5 (AA: 144-275) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	9474
<b>Other Names</b>	ASP; APG5; APG5L; hAPG5; APG5-LIKE
<b>Dilution</b>	E~~ 1/10000 WB~~ 1/500 - 1/2000
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	ATG5 is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ATG5 ( <a href="#">HGNC:589</a> )
<b>Synonyms</b>	APG5L, ASP
<b>Function</b>	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). Localizes also 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

## References

1.PLoS One. 2014 Oct 17;9(10):e110293.2.Sci Transl Med. 2013 Sep 11;5(202):202ra123.

## Images

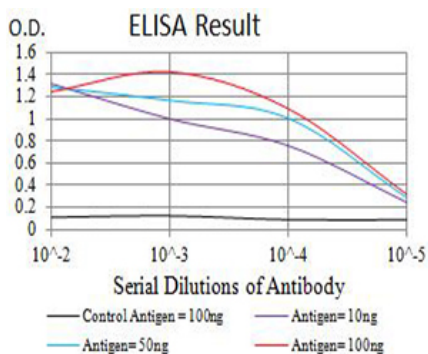


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

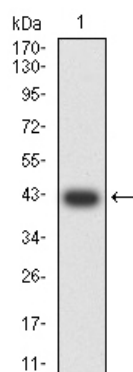


Figure 2:Western blot analysis using ATG5 mAb against human ATG5 (AA: 144-275) recombinant protein. (Expected MW is 41.5 kDa)

Figure 3:Western blot analysis using ATG5 mAb against HEK293 (1) and ATG5 (AA: 144-275)-hIgGfc transfected HEK293 (2) cell lysate.

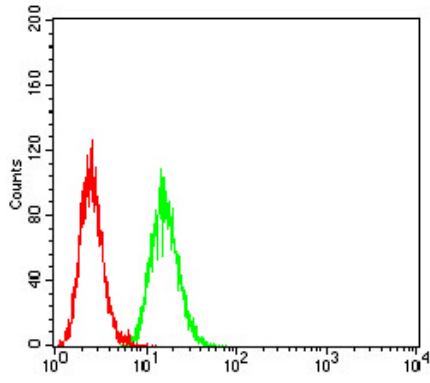
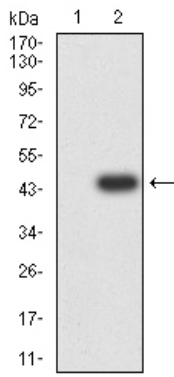


Figure 4: Flow cytometric analysis of HeLa cells using ATG5 mouse mAb (green) and negative control (red).

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