

KD-Validated Anti-ATG5 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1424**Specification****KD-Validated Anti-ATG5 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q9H1Y0
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 32 kDa , observed, 50 kDa KDa
Gene Name	ATG5
Aliases	ATG5; Autophagy Related 5; ASP; HAPG5; APG5L; APG5; Apoptosis-Specific Protein; Autophagy Protein 5; ATG5 Autophagy Related 5 Homolog (S. Cerevisiae); APG5 (Autophagy 5, S. Cerevisiae)-Like; APG5 Autophagy 5-Like (S. Cerevisiae); ATG5 Autophagy Related 5 Homolog; APG5 Autophagy 5-Like; APG5-LIKE; APG5-Like; SCAR25
Immunogen	A synthesized peptide derived from human ATG5

KD-Validated Anti-ATG5 Rabbit Monoclonal Antibody - Additional Information

Gene ID	9474
Other Names	
Autophagy protein 5, APG5-like, Apoptosis-specific protein, ATG5 (HGNC:589), APG5L, ASP	

KD-Validated Anti-ATG5 Rabbit Monoclonal 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. 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

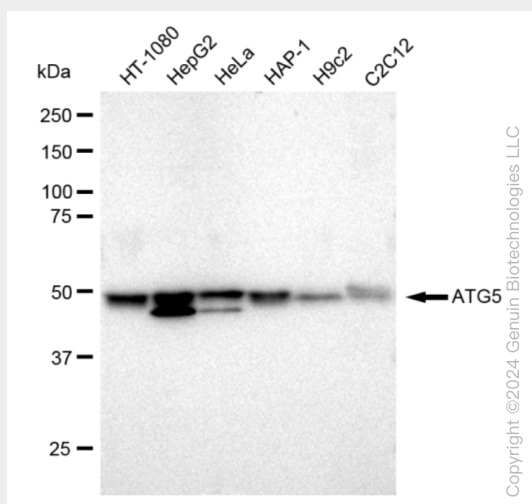
Ubiquitous. The mRNA is present at similar levels in viable and apoptotic cells, whereas the protein is dramatically highly expressed in apoptotic cells

KD-Validated Anti-ATG5 Rabbit Monoclonal Antibody - Protocols

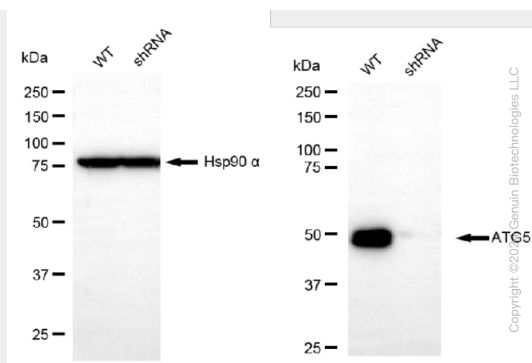
Provided below are standard protocols that you may find useful for product applications.

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

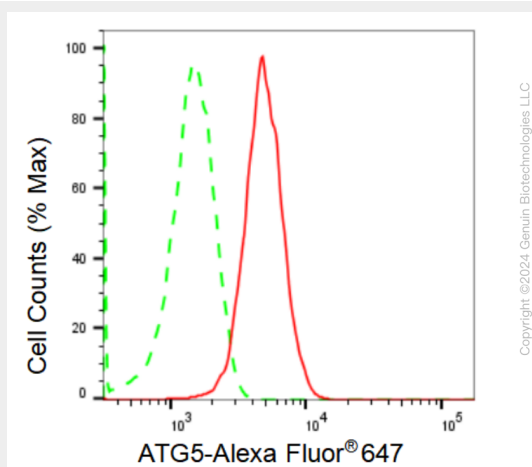
KD-Validated Anti-ATG5 Rabbit Monoclonal Antibody - Images



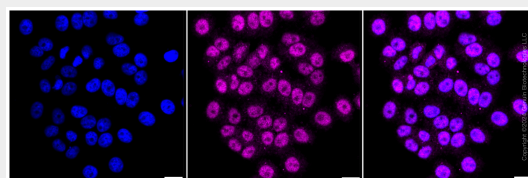
Western blotting analysis using anti-ATG5 antibody (Cat#AGI1424). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ATG5 antibody (Cat#AGI1424, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-ATG5 antibody (Cat#AGI1424). ATG5 expression in wild type (WT) and ATG5 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ATG5 antibody (Cat#AGI1424, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of ATG5 expression in HepG2 cells using ATG5 antibody (Cat#AGI1424, 1:2,000). Green, isotype control; red, ATG5.



Immunocytochemical staining of HepG2 cells with ATG5 antibody (Cat#AGI1424, 1:1,000). Nuclei were stained blue with DAPI; ATG5 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar: 20 µm.