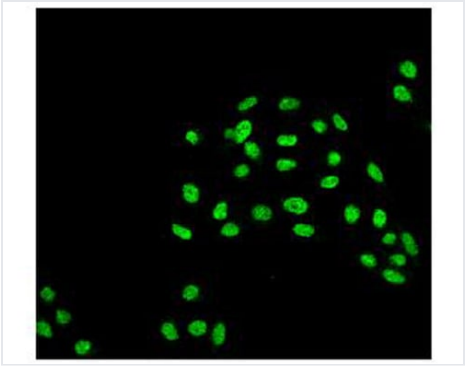
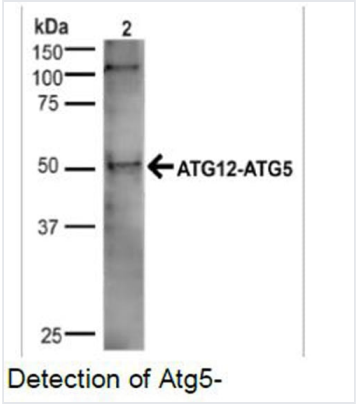
ATG5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Atg5, Polyclonal Antibody
Full Product Name	Atg5
Product Gene Name	anti-Atg5 antibody
Clonality	Polyclonal
Host	Rabbit
Form/Format	Peptide affinity-purified antibody in PBS, pH 7.4, 50% glycerol, 0.09% sodium azide.
Concentration	1mg/ml (lot specific)
Specificity	This antibody recognizes human Atg5.
Preparation and Storage	This antibody is stable for at least one (1) year at -20 degree C. Store product in appropriate aliquots to avoid multiple freeze-thaw cycles.
Molecular Weight	22,931 Da
OMIM	Y11588 mRNA
3D Structure	ModBase 3D Structure for Q9H1Y0
Antigen	Synthetic peptide corresponding to amino acids at the N-terminus of human Atg5.
Applications Tested/Suitable for anti-Atg5 antibody	Immunoblotting (IB)
Application Notes for anti-Atg5 antibody	Immunoblotting: use at 1-2ug/ml. A band of ~50kDa, corresponding to Atg12-Atg5 complex, is detected. The predicted molecular weight of ATG5 is ~32kDa. Immunofluorescence: use at 10ug/ml. Dilute in PBS or medium that is identical to that used in the assay system.
Related Product Information for anti-Atg5 antibody	Autophagy is a catabolic process that results in the degradation of bulk cytoplasmic contents within autophagosomes and lysosomes. Atg12 is an ubiquitin-like protein involved in autophagy vesicle formation. Conjugation with Atg5 through a ubiquitin-like conjugating system involving also 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 vesicle membranes. 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.
Other Notes	Small volumes of anti-Atg5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Atg5 purchase	MBS191005 is an antibody targeting Atg5. Host: Rabbit.



Immunofluorescence (IF) of anti-Atg5 antibody



Testing Data of anti-Atg5 antibody

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Atg5. It may not necessarily be applicable to this product.

NCBI GI #	554790362
NCBI GeneID	9474
NCBI Accession #	NP_001273035.1
UniProt Primary Accession #	Q9H1Y0
UniProt Secondary Accession #	O60875; Q5JVR2; Q68DI4; Q9H2B8; Q9HCZ7
UniProt Related Accession #	Q9H1Y0
GenBank Nucleotide #	NM_001286106.1
NCBI Official Full Name	autophagy protein 5 isoform a
NCBI Official Synonym Full Names	autophagy related 5
NCBI Official Symbol	ATG5
NCBI Official Synonym Symbols	ASP; APG5; APG5L; hAPG5; APG5-LIKE
UniProt Protein Name	Autophagy protein 5
UniProt Synonym Protein Names	APG5-like; Apoptosis-specific protein
Protein Family	Autophagy protein
UniProt Gene Name	ATG5
UniProt Synonym Gene Names	APG5L; ASP
NCBI Protein Information	autophagy protein 5
NCBI Summary for Atg5	The protein encoded by this gene, in combination with autophagy protein 12, functions as an E1-like activating enzyme in a ubiquitin-like conjugating system. The encoded protein is involved in several cellular processes, including autophagic vesicle formation, mitochondrial quality control after oxidative damage, negative regulation of the innate antiviral immune response, lymphocyte development and proliferation, MHC II antigen presentation, adipocyte differentiation, and apoptosis. Several transcript variants encoding different protein isoforms have been found for this gene. [provided by RefSeq, Sep 2015]

UniProt Comments for Atg5	ATG5: Required for autophagy. Conjugates to ATG12 and associates with isolation membrane to form cup-shaped isolation membrane and autophagosome. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed. The ATG5-ATG12 conjugate forms a complex with several units of ATG16. Interacts with TECPR1; the interaction is direct and does not take place when ATG16 is associated with the ATG5-ATG12 conjugate. By apoptotic stimuli. Ubiquitous. The mRNA is present at similar levels in viable and apoptotic cells, whereas the protein is dramatically highly expressed in apoptotic cells. Belongs to the ATG5 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Apoptosis; Autophagy; Ubiquitin conjugating system Chromosomal Location of Human Ortholog: 6q21 Cellular Component: autophagic vacuole; axoneme; cytoplasm; cytosol; membrane; phagocytic vesicle membrane; pre-autophagosomal structure membrane Molecular Function: APG8 conjugating enzyme activity; protein binding Biological Process: autophagic vacuole formation; autophagy; C-terminal protein lipidation; cellular response to nitrogen starvation; macroautophagy; mitochondrion degradation; post-translational protein modification
Research Articles on Atg5	**1.** UA exerted antiatherosclerosis effects in quails and protected HUVECs from ox-LDL induced cytotoxicity, and the mechanism is associated with increased SIRT1 expression, decreased Atg5 acetylation on lysine residue, and increased autophagy.
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