APG5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	APG5, Polyclonal Antibody
Full Product Name	APG5, cleaved (T193) (APG5 Autophagy 5-like, APG5-like, APG5L, Apoptosis-specific Protein, ASP, ATG5 Autophagy-related 5 Homolog, Autophagy Protein 5, hAPG5, Homolog of S Cerevisiae Autophagy 5) (FITC)
Product Gene Name	anti-APG5 antibody
Product Synonym Gene Name	ATG5
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by Peptide Immunoaffinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	34.6 kDa (295aa), confirmed by MALDI-TOF
OMIM	604261
3D Structure	ModBase 3D Structure for Q9H1Y0
Immunogen	Cleaved-APG5-T193 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide corresponding to amino acid residues surrounding pT439 of human APG5.
Conjugate	FITC
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-APG5 antibody	Antibodies; Autophagy
Applications Tested/Suitable for anti-APG5 antibody	FLISA, Dot Blot (DB)
Application Notes for anti-APG5 antibody	FLISA: 1:1,000 Applications are based on unconjugated antibody.

Related Product Information for anti-APG5 antibody	Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole). APG5, required for autophagy, conjugates to ATG12 and associates with an isolation membrane to form a cup-shaped isolation membrane and autophagosome. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed. APG5 may also play an important role in the apoptotic process, possibly within the modified cytoskeleton. Its expression is a relatively late event in the apoptotic process, occurring downstream of caspase activity.
Product References and Citations for anti-APG5 antibody	Yung, H.W., et al., FEBS Lett. 531(2):168-172 (2002). Tanida, I., et al., Biochem. Biophys. Res. Commun. 296(5):1164-1170 (2002). Tanida, I., et al., J. Biol. Chem. 277(16):13739-13744 (2002). Chen, Y., et al., Yi Chuan Xue Bao 28(11):1077-1084 (2001). Hammond, E.M., et al., FEBS Lett. 425(3):391-395 (1998).
Other Notes	Small volumes of anti-APG5 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 APG5 purchase	MBS6274272 is an antibody targeting APG5. Also known as APG5, cleaved (T193) (APG5 Autophagy 5-like, APG5-like, APG5L, Apoptosis-specific Protein, ASP, ATG5 Autophagy-related 5 Homolog, Autophagy Protein 5, hAPG5, Homolog of S Cerevisiae Autophagy 5) (FITC). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for APG5. It may not necessarily be applicable to this product.

NCBI GI #	4757798
NCBI GeneID	9474
NCBI Accession #	NP_004840
UniProt Primary Accession #	Q9H1Y0
UniProt Secondary Accession #	O60875; Q5JVR2; Q68DI4; Q9H2B8; Q9HCZ7
UniProt Related Accession #	Q9H1Y0
GenBank Nucleotide #	NM_004849.3
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; SCAR25; APG5-LIKE
UniProt Protein Name	Autophagy protein 5
UniProt Synonym Protein Names	APG5-like; Apoptosis-specific protein
UniProt Gene Name	ATG5
UniProt Synonym Gene Names	APG5L; ASP
UniProt Entry Name	ATG5_HUMAN
NCBI Protein Information	autophagy protein 5
NCBI Summary for APG5	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 APG5	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: Ubiquitin conjugating system; Autophagy; Apoptosis Chromosomal Location of Human Ortholog: 6q21 Cellular Component: membrane; pre-autophagosomal structure membrane; cytoplasm; autophagic vacuole; axoneme Molecular Function: protein binding; APG8 conjugating enzyme activity Biological Process: response to drug; response to fungus; apoptosis; ventricular cardiac muscle cell development; C-terminal protein lipidation; post-translational protein modification; vasodilation; regulation of release of sequestered calcium ion into cytosol; cellular response to nitrogen starvation; heart contraction; regulation of cytokine secretion during immune response; mitochondrion degradation; autophagy; innate immune response; negative regulation of protein ubiquitination; blood vessel remodeling; negative regulation of interferon type I production; otolith development; autophagic vacuole formation; negative regulation of apoptosis
Research Articles on APG5	**1.** the ATG5-ATG7-NCOA4 autophagic pathway has a role in ferroptosis
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