10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Atg5 Antibody

Mouse Monoclonal Antibody
Catalog # AP53482

Product Information

Application	WB
Primary Accession	Q9H1Y0
Other Accession	NM_001286
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Immunogen	Synthetic peptide.
Purification	Affinity purified
Calculated MW	32447

Additional Information

Gene ID	9474
Other Names	APG 5;APG 5L;APG5;APG5 autophagy 5 like;APG5 like;APG5-like;APG5L;Apoptosis specific protein;Apoptosis-specific protein;ASP;ATG 5;Atg5;ATG5 autophagy related 5 homolog;ATG5_HUMAN;Autophagy protein 5;hAPG5;Homolog of S Cerevisiae autophagy 5;OTTHUMP00000040507.
Dilution	WB~~1:1000
Format	Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

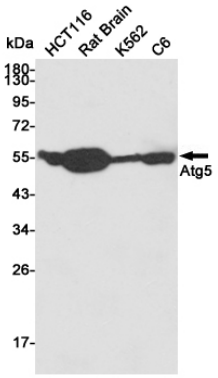
Name	ATG5 (HGNC:589)
Synonyms	APG5L, ASP
Function	Involved in autophagic vesicle formation. Conjugation with ATG12, through a ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate 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

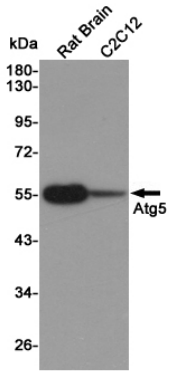
Background

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. May play

Images



Western blot detection of Atg5 in HCT116,Rat Brain,K562 and C6 cell lysates using Atg5 mouse mAb (1:1000 diluted).Predicted band size:55KDa.Observed band size:55KDa.



Western blot detection of Atg5 in Rat Brain and C2C12 cell lysates using Atg5 mouse mAb (1:1000 diluted).Predicted band size:55KDa.Observed band size:55KDa.

Citations

- The protective effects of long non-coding RNA-ANCR on arterial calcification