Rabbit APG8a/b (MAP1LC3A/B) Polyclonal Antibody | anti-MAP1LC3B antibody

APG8a/b (MAP1LC3A/B) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290210	**Rabbit**	**Human, mouse (Predicted Reactivity: Bovine)**	**Immunohistochemistry, Western Blot, ELISA, Immunofluorescence**

PRODUCT SYNONYMS

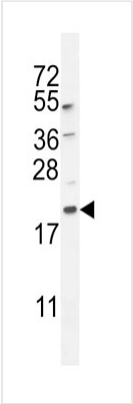
APG8a/b (MAP1LC3A/B); Polyclonal Antibody; APG8a/b (MAP1LC3A/B) Antibody; Microtubule-associated proteins 1A/1B light chain 3B; Autophagy-related protein LC3 B; Autophagy-related ubiquitin-like modifier LC3 B; MAP1 light chain 3-like protein 2; MAP1A/MAP1B light chain 3 B; MAP1A/MAP1B LC3 B; Microtubule-associated protein 1 light chain 3 beta; MAP1LC3B; MAP1ALC3; anti-MAP1LC3B antibody

PRODUCT SPECIFICATIONS

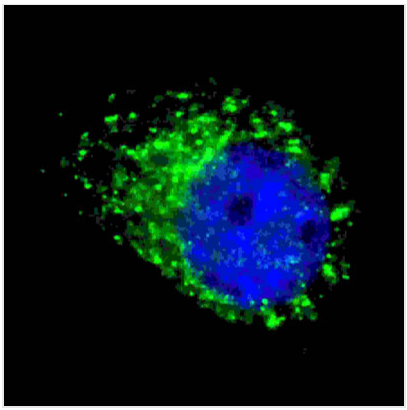
Host	Rabbit
Reactivity	Human, mouse (Predicted Reactivity: Bovine)
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This Cleaved-APG8a/b antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 100-125 amino acids from human Cleaved-APG8a/b.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Sequence Positions	100-125
Sequence Length	125
Applicable Applications for anti-MAP1LC3B antibody	IHC (Immunohistochemistry), WB (Western Blot), ELISA, IF (Immunofluorescence)
Function	Ubiquitin-like modifier involved in formationof autophagosomal vacuoles(autophagosomes). Plays a role in mitophagywhich contributes to regulate mitochondrialquantity and quality by eliminating themitochondria to a basal level to fulfill cellularenergy requirements and preventing excessROS production (PubMed:). While LC3sare involved in elongation of the phagophoremembrane, the GABARAP/GATE-16 subfamilyis essential for a later stage inautophagosome maturation. Promotesprimary ciliogenesis by removing OFD1 fromcentriolar satellites via the autophagicpathway. Through its interaction with thereticulophagy receptor TEX264, participatesin the remodeling of subdomains of theendoplasmic reticulum into autophagosomesupon nutrient stress, which then fuse withlysosomes for endoplasmic reticulumturnover (PubMed: , PubMed:31006537).
Cellular Location	Cytoplasm, cytoskeleton. Endomembranesystem; Lipid-anchor. Cytoplasmic vesicle,autophagosome membrane; Lipid- anchor.Note=LC3-II binds to the autophagicmembranes. LC3-II localizes with themitochondrial inner membrane duringParkin-mediated mitophagy(PubMed:28017329). Localizes also todiscrete punctae along the ciliary axoneme.
Tissue Location	Most abundant in heart, brain, skeletalmuscle and testis. Little expression observed in liver
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°Cin small aliquots to prevent freeze-thawcycles.

IMAGES

IHC (Immunohistochemisry)
Cleaved-APG8a/b antibody (MAP1LC3A/B) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the Cleaved-APG8a/b antibody (MAP1LC3A/B) for immunohistochemistry. Clinical relevance has not been evaluated.



WB (Western Blot)
APG8a/b (MAP1LC3A/B) western blot analysis in mouse lung tissue lysates (35ug/lane).This demonstrates the MAP1LC3A antibody detected the MAP1LC3A protein (arrow).



IF (Immunofluorescence)
Fluorescent image of U251 cells stained with APG8a/b (MAP1LC3A/B) antibody. U251 cells were treated with Chloroquine (50 uM,16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AAA290210 APG8a/b (MAP1LC3A/B) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 ug/ml, 5 min). APG8a/b (MAP1LC3A/B) immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.

ADDITIONAL INFORMATION

Related Product Information for anti-MAP1LC3B antibody	The product of this gene is a subunit of neuronal microtubule-associated MAP1A and MAP1B proteins, which are involved in microtubule assembly and important for neurogenesis. Studies on the rat homolog implicate a role for this gene in autophagy, a process that involves the bulk degradation of cytoplasmic component.
Product Categories/Family for anti-MAP1LC3B antibody	Cancer; Cardiovascular; Metabolism; Neuroscience; Signal Transduction; Autophagy

References	References for protein 1.Rouschop, K.M., et al. J. Clin. Invest. 120(1):127-141(2010) 2.Kirkin, V., et al. Mol. Cell 33(4):505-516(2009) 3.Othman, E.Q., et al. J. Clin. Lab. Anal. 23(4):249-258(2009) 4.Liu, Q., et al. Ai Zheng 27(1):25-29(2008) 5.Komatsu, M., et al. Cell 131(6):1149-1163(2007) References for U251 cell line: 1. Westermark B.; Pontén J.; Hugosson R. (1973)." Determinants for the establishment of permanent tissue culture lines from human gliomas". Acta Pathol Microbiol Scand A. 81:791-805. [PMID: 4359449]. 2. Pontén, J.,Westermark B. (1978)." Properties of Human Malignant Glioma Cells in Vitro". Medical Biology 56: 184-193.[PMID: 359950]. 3. Geng Y.;Kohli L.; Klocke B.J.; Roth K.A.(2010). "Chloroquine-induced autophagic vacuole accumulation and cell death in glioma cells is p53 independent". Neuro Oncol. 12(5): 473-481.[PMID: 20406898].

NCBI AND UNIPROT INFORMATION

NCBI GI #	12383056
NCBI GeneID	81631
NCBI Accession #	NP_073729.1
NCBI GenBank Nucleotide #	NM_022818.4
UniProt Accession #	Q9GZQ8; Q6NW02
NCBI Official Full Name	microtubule-associated proteins 1A/1B light chain 3B
NCBI Official Synonym Full Names	microtubule-associated protein 1 light chain 3 beta
NCBI Official Symbol	MAP1LC3B
NCBI Official Synonym Symbols	LC3B; ATG8F; MAP1LC3B-a; MAP1A/1BLC3
NCBI Protein Information	microtubule-associated proteins 1A/1B light chain 3B
UniProt Protein Name	Microtubule-associated proteins 1A/1B light chain 3B
UniProt Gene Name	**MAP1LC3B**
UniProt Synonym Gene Names	MAP1ALC3; MAP1A/MAP1B LC3 B
UniProt Entry Name	MLP3B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/apg8a-b-map1lc3a-b-antibody-immunohistochemistry-western-blot-immunofluorescence-elisa/290210