

MAP1LC3B / LC3B Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS16042**Specification**

MAP1LC3B / LC3B Antibody (N-Terminus) - Product Information

Application	IF, IHC, WB
Primary Accession	O9GZQ8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	15kDa KDa

MAP1LC3B / LC3B Antibody (N-Terminus) - Additional Information**Gene ID** 81631**Other Names**

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

Target/Specificity

MAP1LC3B antibody is human, mouse and rat reactive. Multiple isoforms MAP1LC3B are known to exist. MAP1LC3B antibody is predicted to not cross-react with MAP1LC3A or MAP1LC3C.

Reconstitution & Storage

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

MAP1LC3B / LC3B Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

MAP1LC3B / LC3B Antibody (N-Terminus) - Protein Information**Name** MAP1LC3B ([HGNC:13352](#))**Synonyms** MAP1ALC3**Function**

Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes) (PubMed:20418806, PubMed:23209295, PubMed:28017329). Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production (PubMed:<a href="http://www.uniprot.org/citations/23209295"

target="_blank">23209295, PubMed:28017329). In response to cellular stress and upon mitochondria fission, binds C-18 ceramides and anchors autophagolysosomes to outer mitochondrial membranes to eliminate damaged mitochondria (PubMed:22922758). While LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation (PubMed:20418806, PubMed:23209295, PubMed:28017329). Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway (PubMed:24089205). Through its interaction with the reticulophagy receptor TEX264, participates in the remodeling of subdomains of the endoplasmic reticulum into autophagosomes upon nutrient stress, which then fuse with lysosomes for endoplasmic reticulum turnover (PubMed:31006537, PubMed:31006538). Upon nutrient stress, directly recruits cofactor JMY to the phagophore membrane surfaces and promotes JMY's actin nucleation activity and autophagosome biogenesis during autophagy (PubMed:30420355).

Cellular Location

Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor Endomembrane system; Lipid-anchor Mitochondrion membrane; Lipid-anchor. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q9CQV6}. Cytoplasmic vesicle. Note=LC3-II binds to the autophagic membranes. LC3-II localizes with the mitochondrial inner membrane during Parkin-mediated mitophagy (PubMed:28017329). Also localizes to discrete punctae along the ciliary axoneme

Tissue Location

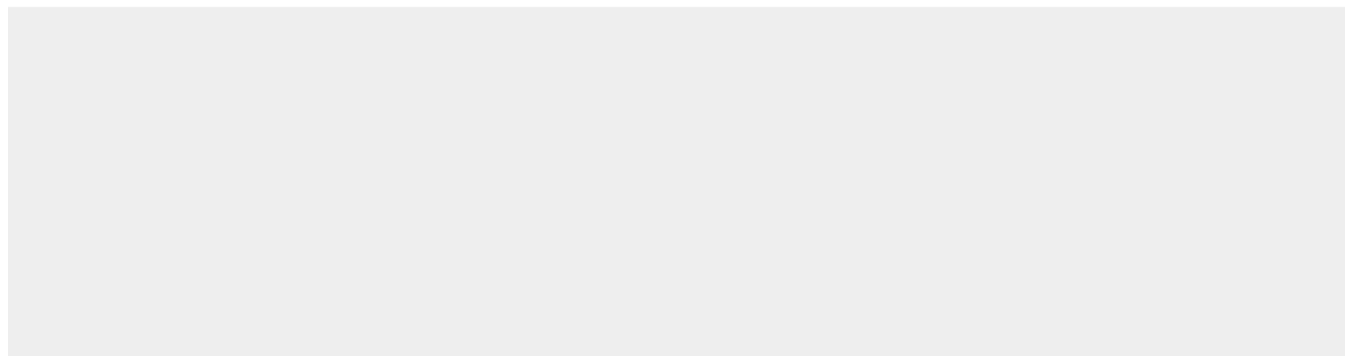
Most abundant in heart, brain, skeletal muscle and testis. Little expression observed in liver

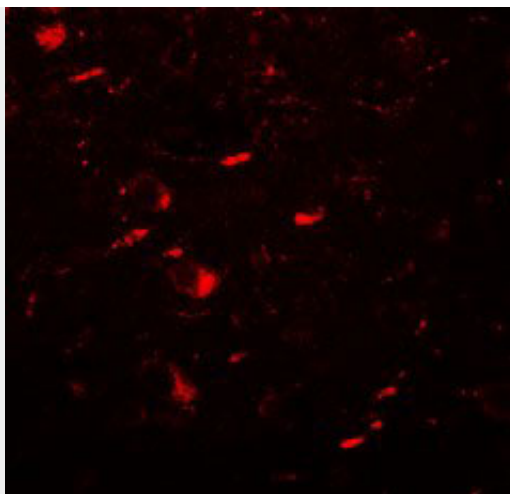
MAP1LC3B / LC3B Antibody (N-Terminus) - Protocols

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

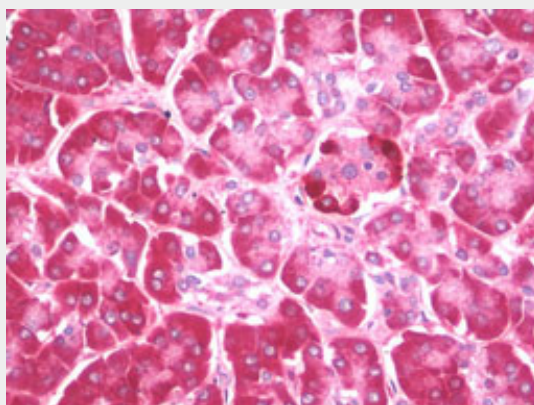
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MAP1LC3B / LC3B Antibody (N-Terminus) - Images

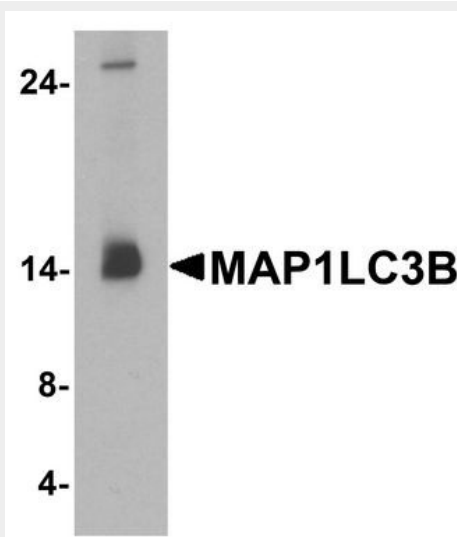




Immunofluorescence of MAP1LC3B in human brain tissue with MAP1LC3B antibody at 20 µg/mL.



Anti-MAP1LC3B / LC3B antibody IHC staining of human pancreas.



Western blot analysis of MAP1LC3B in human brain tissue lysate with MAP1LC3B antibody at 1 µg/mL.

MAP1LC3B / LC3B Antibody (N-Terminus) - Background

Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes). Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating

the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation. Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway.

MAP1LC3B / LC3B Antibody (N-Terminus) - References

Difilippantonio S., et al. Eur. J. Cancer 39:1936-1947(2003).
Yang Y.-S., et al. Endocr. Relat. Cancer 10:621-627(2003).
He H., et al. J. Biol. Chem. 278:29278-29287(2003).
Ota T., et al. Nat. Genet. 36:40-45(2004).
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