

MAP1LC3B Antibody

Catalog # ASC11727

Specification

MAP1LC3B Antibody - Product Information

Application **WB, IHC, IF**
Primary Accession [O9GZQ8](#)
Other Accession [NP_073729](#),
[12383056](#)
Reactivity **Human, Mouse, Rat**
Host **Rabbit**
Clonality **Polyclonal**
Isotype **IgG**
Calculated MW **Predicted: 14 kDa**

Application Notes **Observed: 14 kDa**
KDa
MAP1LC3B
antibody can be
used for
detection of
MAP1LC3B by
Western blot at 1
- 2 µg/ml.
Antibody can also
be used for Immu
nohistochemistry
starting at 5
µg/mL. For immun
ofluorescence
start at 20 µg/mL.

MAP1LC3B Antibody - Additional Information

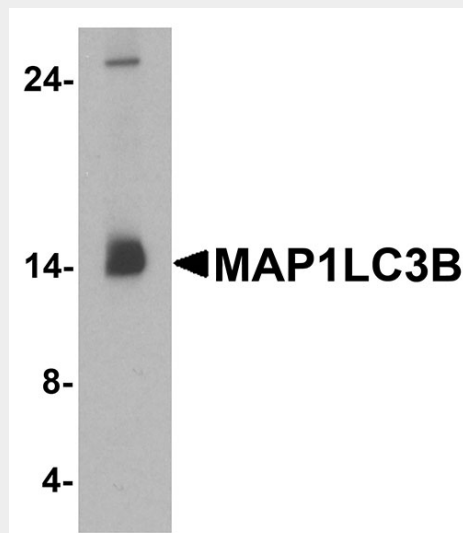
Gene ID **81631**
Target/Specificity
MAP1LC3B; MAP1LC3B antibody is human, mouse and rat reactive. Multiple isoforms MAP1LC3B are known to exist. MAP1LC3B antibody is predicted to not cross-react with MAP1LC3A or MAP1LC3C

Reconstitution & Storage

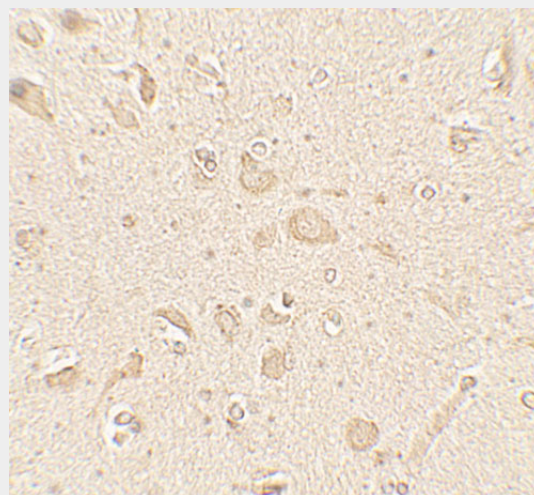
MAP1LC3B antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

MAP1LC3B Antibody is for research use only and not for use in diagnostic or therapeutic



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



Immunohistochemistry of MAP1LC3B in human brain tissue with MAP1LC3B antibody at 5 µg/mL.

procedures.

MAP1LC3B Antibody - Protein Information

Name MAP1LC3B ([HGNC:13352](#))

Synonyms MAP1ALC3

Function

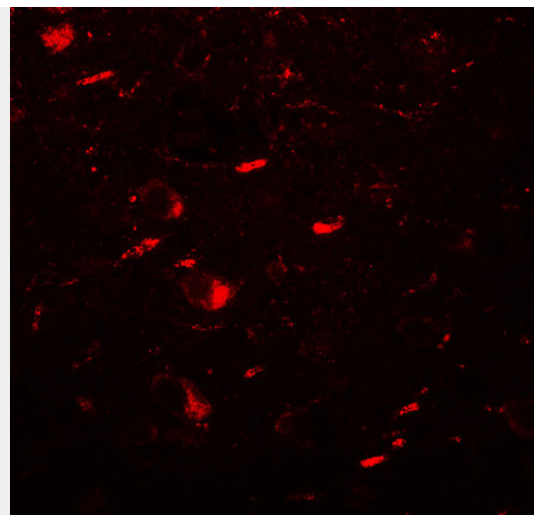
Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes). Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production (PubMed:28017329). While 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. 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:31006538, PubMed:31006537).

Cellular Location

Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Note=LC3-II binds to the autophagic membranes. LC3-II localizes with the mitochondrial inner membrane during Parkin-mediated mitophagy (PubMed:28017329). Localizes also to discrete punctae along the ciliary axoneme

Tissue Location

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



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

MAP1LC3B Antibody - Background

Microtubule-associated proteins (MAPs) regulate microtubule stability and play critical roles in neuronal development and plasticity (1). MAP1LC3B belongs to the MAP1 LC3 family and it includes 3 different light chains, LC1, LC2 and LC3 (2). MAP1LC3B is involved in formation of autophagosomal vacuoles (autophagosomes) (3). It is most abundant in heart, brain, skeletal muscle and testis. MAP1LC3B is essential for autophagy and associated to the autophagosome membranes after processing (4).

MAP1LC3B Antibody - References

Mandelkow E and Mandelkow EM. Microtubules and microtubule-associated proteins. Curr. Opin. Cell Biol. 1995; 7:72-81.
Fink JK, Jones SM, Esposito C, et al. Human microtubule-associated protein 1A (MAP1A) gene: genomic organization, cDNA sequence, and developmental and tissue-specific expression. Genomics 1996; 35:577-85.
Colecchia D, Strambi A, Sanzone S, et al. MAPK15/ERK8 stimulates autophagy by interacting with LC3 and GABARAP proteins. Autophagy 2012; 8:1724-40.
Kabeya Y, Mizushima N, Ueno T, et al. LC3, a mammalian homolog of yeast Apg8p, is localized in autophagosome membrane after processing. EMBO J. 2000; 19:5720-8.

MAP1LC3B Antibody - 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](#)