

MAP1LC3A Antibody

Catalog # ASC11726

Specification

MAP1LC3A Antibody - Product Information

Application **WB, IHC, IF**
Primary Accession [Q9H492](#)
Other Accession [NP_852610](#),
[31563518](#)
Reactivity **Human**
Host **Rabbit**
Clonality **Polyclonal**
Isotype **IgG**
Calculated MW **Predicted: 14 kDa**

Observed: 21 kDa
KDa
Application Notes **MAP1LC3A**
antibody can be
used for
detection of
MAP1LC3A 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.

MAP1LC3A Antibody - Additional Information

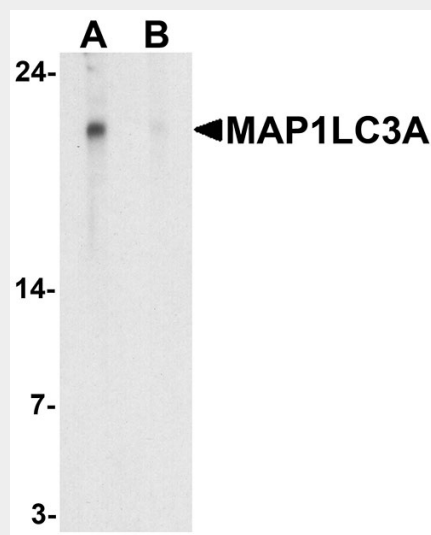
Gene ID **84557**
Target/Specificity
MAP1LC3A; MAP1LC3A antibody is human specific. At least two isoforms of MAP1LC3A are known to exist. MAP1LC3A antibody is predicted to not cross-react with MAP1LC3B or MAP1LC3C.

Reconstitution & Storage

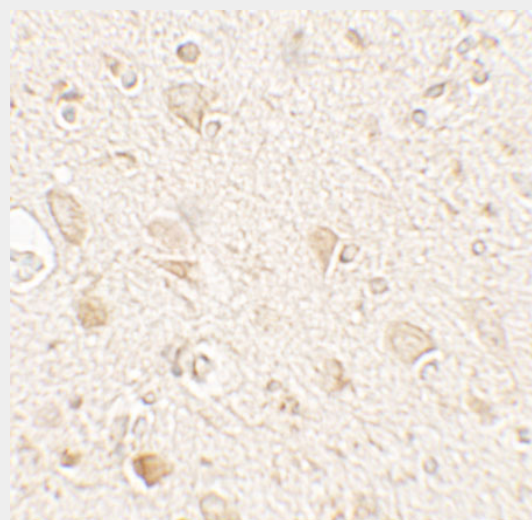
MAP1LC3A antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

MAP1LC3A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Western blot analysis of MAP1LC3A in HeLa cell lysate with MAP1LC3A antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of MAP1LC3A in human brain tissue with MAP1LC3A antibody at 5 µg/mL.

MAP1LC3A Antibody - Protein Information

Name MAP1LC3A

Function

Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes) (PubMed:20713600, PubMed:24290141). 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:20713600). 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. Cytoplasmic vesicle, autophagosome. Note=LC3-II binds to the autophagic membranes

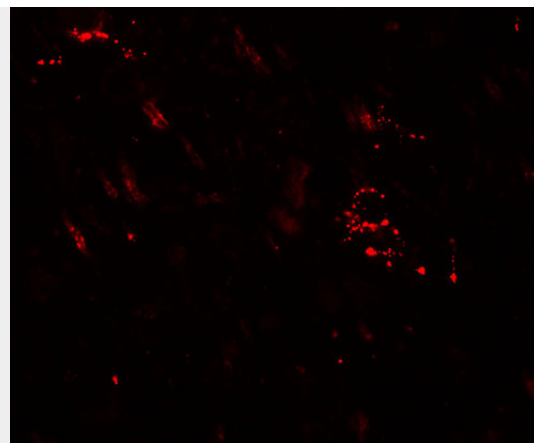
Tissue Location

Most abundant in heart, brain, liver, skeletal muscle and testis but absent in thymus and peripheral blood leukocytes

MAP1LC3A Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)



Immunofluorescence of MAP1LC3A in human brain tissue with MAP1LC3A antibody at 20 µg/mL.

MAP1LC3A Antibody - Background

Microtubule-associated proteins (MAPs) regulate microtubule stability and play critical roles in neuronal development and plasticity (1). MAP1LC3A belongs to the MAP1 LC3 family of proteins that form mature complexes with MAP1A and MAP1B which are thought to be important in the formation and development of axons and dendrites (2). MAP1LC3A is one of three isoforms of MAP1LC3, the mammalian homolog of yeast ATG8, an essential autophagy protein. These isoforms exhibit distinct expression patterns and MAP1LC3A, like MAP1LC3A but not MAP1LC3B, is post-translationally modified, suggesting the three isoforms may have different physiological functions (3).

MAP1LC3A Antibody - References

Mandelkow E and Mandelkow EM. Microtubules and microtubule-associated proteins. *Curr. Opin. Cell Biol.* 1995; 7:72-81.
Halpain S and Dehmelt L. The MAP1 family of microtubule-associated proteins. *Genome Biol.* 2006; 7:224.
He H, Dang Y, Dai F, et al. Post-translational modifications of three members of the human MAP1LC3 family and detection of a novel type of modification for MAP1LC3B. *J. Biol. Chem.* 2003; 278:29278-87.

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