

LC3 (APG8) Antibody (Clone 166AT1234)
Mouse Monoclonal Antibody
Catalog # ABV10185**Specification**

LC3 (APG8) Antibody (Clone 166AT1234) - Product Information

Application	WB, IHC, IF
Primary Accession	Q9H492
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1-Kappa
Calculated MW	14272

LC3 (APG8) Antibody (Clone 166AT1234) - Additional Information**Gene ID** 84557

Positive Control	WB: Hela cell lysate, IHC: muscle tissue, IF: U251 cells
Application & Usage	Western blot: 1:1000, IHC: 1:50-100, IF: 1:200.

Other Names

MAP1LC3A; Microtubule-associated proteins 1A/1B light chain 3A; Autophagy-related protein LC3 A; Autophagy-related ubiquitin-like modifier LC3 A; MAP1 light chain 3-like protein 1; MAP1A/MAP1B light chain 3 A; Microtubule-associated protein 1 light chain 3 alpha

Target/Specificity

LC3

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

Supplied in PBS with 0.09% (W/V) sodium azide.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

LC3 (APG8) Antibody (Clone 166AT1234) is for research use only and not for use in diagnostic or

therapeutic procedures.

LC3 (APG8) Antibody (Clone 166AT1234) - Protein Information

Name MAP1LC3A ([HGNC:6838](#))

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

Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Endomembrane system; Lipid-anchor. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q91VR7}. 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

LC3 (APG8) Antibody (Clone 166AT1234) - 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](#)

LC3 (APG8) Antibody (Clone 166AT1234) - Images

LC3 (APG8) Antibody (Clone 166AT1234) - Background

Autophagy is an alternative process of proteasomal degradation for some long-lived proteins or organelles. Alterations in the autophagic-lysosomal compartment have been linked to neuronal death in many neurodegenerative disorders as well as in transmissible neuronal pathologies (prion diseases). Genetic studies in yeast have shown that Autophagy-defective Gene-8 (Atg-8) represents a specific marker for autophagy. Among the four families of mammalian Atg8-related proteins only LC3 (Microtubule-associated Protein1 Light Chain 3) is expressed at sufficient high levels and efficiently recruited to autophagic vesicles in cells and tissues. During autophagy the cytoplasmic form, LC3-I is processed and recruited to autophagosomes, where LC3-II is generated by site specific proteolysis near to the C-terminus. Autophagic vacuoles have been also reported frequently

in cardiomyopathies or muscle cells exposed to different experimental settings.