

LC3 Antibody (APG8A/B)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1803a-400 □

Specification

LC3 Antibody (APG8A/B) - Product info

Application	WB
Primary Accession	Q9GZQ8
Other Accession	A6NCE7 , Q62625 , Q9CQV6 , Q41515 , Q6XVN8 , Q91VR7 , Q9H492 , Q2HJ23
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Clone Names	RB7483 / RB7484

LC3 Antibody (APG8A/B) - Additional info

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

This LC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 23-52 amino acids from human LC3.

Dilution

WB~~1:500

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.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

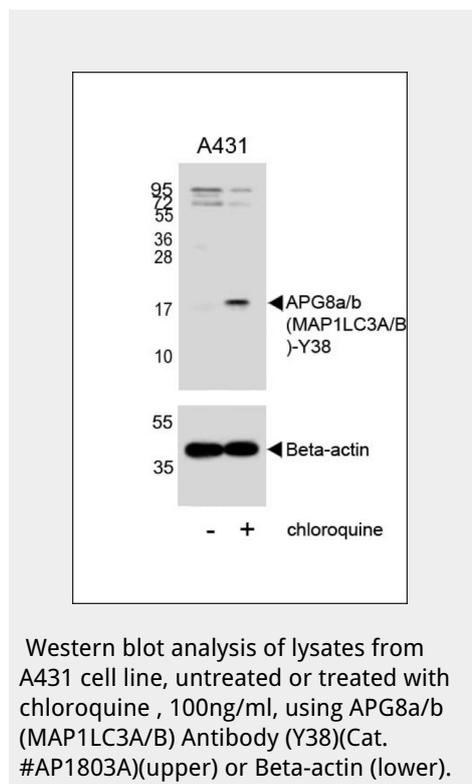
Precautions

LC3 Antibody (APG8A/B) is for research use only and not for use in diagnostic or therapeutic procedures.

LC3 Antibody (APG8A/B) - Protein Information

Name MAP1LC3B

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. 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.

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. Localizes also to discrete punctae along the ciliary axoneme (By similarity)

Tissue Location

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

LC3 Antibody (APG8A/B) - 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 Antibody (APG8A/B) - Background

Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole). MAP1A and MAP1B are microtubule-associated proteins which mediate the physical interactions between microtubules and components of the cytoskeleton. These proteins are involved in formation of autophagosomal vacuoles (autophagosomes). MAP1A and MAP1B each consist of a heavy chain subunit and multiple light chain subunits. MAP1LC3a and MAP1LC3b are light chain subunits and can associate with either MAP1A or MAP1B. The precursor molecules are cleaved by APG4B/ATG4B to form the cytosolic form, LC3-I. This is activated by APG7L/ATG7, transferred to ATG3 and conjugated to phospholipid to form the membrane-bound form, LC3-II.

LC3 Antibody (APG8A/B) - References

Baehrecke EH. *Nat Rev Mol Cell Biol.* 6(6):505-10. (2005) Lum JJ, et al. *Nat Rev Mol Cell Biol.* 6(6):439-48. (2005) Greenberg JT. *Dev Cell.* 8(6):799-801. (2005) Levine B. *Cell.* 120(2):159-62. (2005) Shintani T and Klionsky DJ. *Science.* 306(5698):990-5. (2004) Tanida I., et al. *Int. J. Biochem. Cell Biol.* 36:2503-2518(2004) He H., et al. *J. Biol.*

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