



Rabbit Anti-MAP1LC3A antibody

SL4309R

Product Name:	MAP1LC3A
Chinese Name:	自噬微管相关蛋白轻链β3抗体
Alias:	Microtubule-associated proteins 1B light chain 3A; Microtubule-associated proteins 1Beta light chain 3A; MAP1B LC3 A; MAP LC3 Beta; MAP-LC3 Beta; MAP1 light chain 3-like protein 1; MAP1LC3A; MLP3A_HUMAN; 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; MAP1A/MAP1B LC3 A; Microtubule-associated protein 1 light chain 3 alpha.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,
Applications:	ELISA=1:500-1000Flow-Cyt=1μg/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	14kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Microtubule-associated proteins 1A/1B light chain 3A:25-121/121
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Microtubule-associated proteins (MAPs) regulate microtubule stability and play critical

roles in neuronal development and in maintaining the balance between neuronal plasticity and rigidity. MAP-light chain 3 beta (MAP-LC3 Beta) and MAP-light chain 3 alpha (MAP-LC3 alpha) are subunits of both MAP1A and MAP1B. MAP-LC3M Beta, a homolog of Apg8p, is essential for autophagy and associated to the autophagosome membranes after processing. Two forms of LC3 Beta, the cytosolic LC3-I and the membrane-bound LC3-II, are produced post-translationally. LC3-I is formed by the removal of the C-terminal 22 amino acids from newly synthesized LC3 β , followed by the conversion of a fraction of LC3-I into LC3-II. LC3 enhances fibronectin mRNA translation in ductus arteriosus cells through association with 60S ribosomes and binding to an AU-rich element in the 3' untranslated region of fibronectin mRNA. This facilitates sorting of fibronectin mRNA onto rough endoplasmic reticulum and translation. MAP LC3 Beta may also be involved in formation of autophagosomal vacuoles. It is expressed primarily in heart, testis, brain and skeletal muscle.

Function:

Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Cytoplasmic vesicle, autophagosome.
Note=LC3-II binds to the autophagic membranes.

Subunit:

3 different light chains, LC1, LC2 and LC3, can associate with MAP1A and MAP1B proteins. Interacts with SQSTM1. Interacts with TP53INP1 and TP53INP2.

Subcellular Location:

Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle,

Tissue Specificity:

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

Post-translational modifications:

The precursor molecule is 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.

Similarity:

Belongs to the MAP1 LC3 family.

SWISS:

Q9H492, Q9GZQ8

Gene ID:

84557

Database links:

[Entrez Gene: 84557](#)Human

[Entrez Gene: 66734](#)Mouse

[Entrez Gene: 362245](#)Rat

[Omim: 601242](#)Human

[SwissProt: Q9H492](#)Human

[SwissProt: Q91VR7](#)Mouse

[SwissProt: Q6XVN8](#)Rat

[Unigene: 632273](#)Human

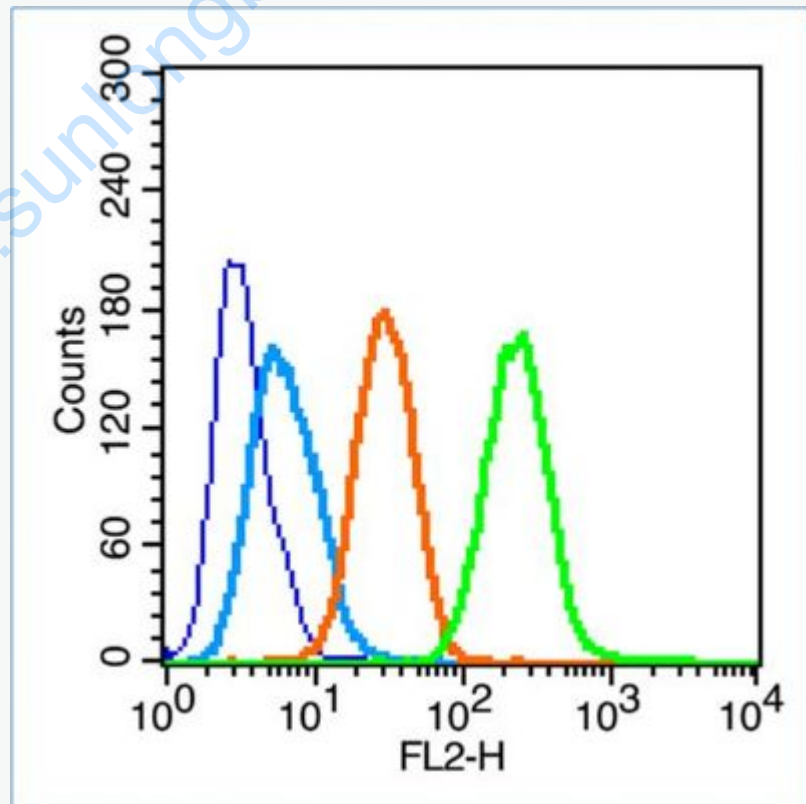
[Unigene: 196239](#)Mouse

[Unigene: 3135](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Blank control (blue line): HeLa (fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min at -20°C).

Primary Antibody (green line): Rabbit Anti-MAP1LC3A antibody (SL4309R), Dilution: 1 µg / 10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE, Dilution: 1 µg / test.

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