For Research Use Only

LC3 Monoclonal antibody

Catalog Number:66139-3-Ig

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
66139-3-Ig

Size:
150ul , Concentration: 1000 μg/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG17959

GenBank Accession Number:
BC015810

GeneID (NCBI):
84557

UNIPROT ID:
Q9H492

Full Name:
microtubule-associated protein 1 light chain 3 alpha

Calculated MW:
121 aa, 14 kDa

Purification Method:
Protein G purification

CloneNo.:
2A5E4

Recommended Dilutions:
IF/ICC 1:250-1:1000

Applications

Tested Applications:
IF/ICC, ELISA

Species Specificity:
human, mouse, rat

Positive Controls:

IF/ICC : Chloroquine treated NIH/3T3 cells, Chloroquine treated PC-12 cells

Background Information

LC3A, also named as MAP1LC3A, LC3, MAP1ALC3 and MAP1BLC3, belongs to the MAP1 LC3 family. LC3A is one of the light chain subunits and can associate with either MAP1A or MAP1B, which are microtubule-associated proteins that mediate the physical interactions between microtubules and components of the cytoskeleton. In cell biology, autophagy, or autophagocytosis, is a catabolic process involving the degradation of a cell's components through the lysosomalmachinery. It is a major mechanism by which a starving cell reallocates nutrients from unnecessary processes to more-essential processes. Two forms of LC3, called LC3-I (17-19kd) and -II(14-16kd), were produced post-translationally in various cells. LC3-I is cytosolic, whereas LC3-II is membrane bound. 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. The amount of LC3-II is correlated with the extent of autophagosome formation. LC3-II is the first mammalian protein identified that specifically associates with autophagosome membranes. (PMID:11060023) MAP1LC3 has 3 isoforms MAP1LC3A, MAP1LC3B and MAP1LC3C. MAP1LC3A and MAP1LC3C are produced by the proteolytic cleavage after the conserved C-terminal Gly residue, like their rat counterpart, MAP1LC3B does not undergo C-terminal cleavage and exists in a single modified form. (PMID:12740394)

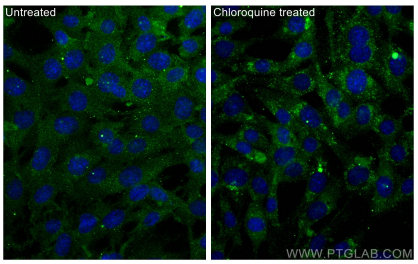
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

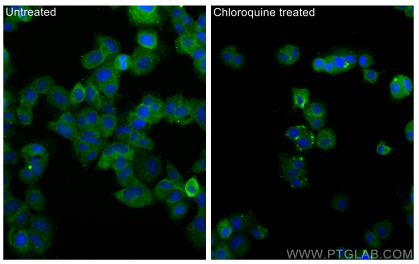
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed Chloroquine treated NIH/3T3 cells using MAP1LC3A,LC3 antibody (66139-3-Ig, Clone: 2A5E4) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1).



Immunofluorescent analysis of (4% PFA) fixed Chloroquine treated PC-12 cells using MAP1LC3A,LC3 antibody (66139-3-Ig, Clone: 2A5E4) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1).