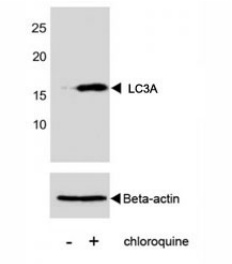
Cleaved LC3A Antibody (ATG8a/APG8a) (F46138)

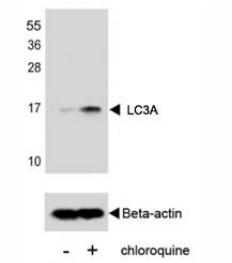
Catalog No.	Formulation	Size
F46138-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F46138-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

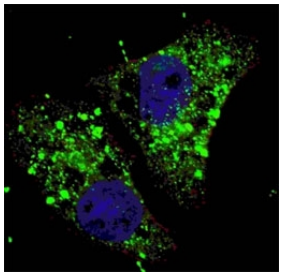
Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Bovine, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q9H492
Applications	Western blot: 1:500 Immunofluorescence: 1:100
Limitations	This Cleaved LC3A antibody is available for research use only.



Western blot analysis of human A431 cells, untreated or treated with chloroquine (100ng/ml) tested with Cleaved LC3A antibody or beta-Actin Ab.



Western blot analysis of mouse NIH3T3 cells, untreated or treated with chloroquine (100ng/ml) tested with Cleaved LC3A antibody or beta-Actin Ab.



Fluorescent image of U251 cells stained with Cleaved LC3A antibody (1:100). Immunoreactivity is localized to the autophagic vacuoles in the cytoplasm.

Description

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/ATG8A is one of the light chain subunits and can associate with either MAP1A or MAP1B. 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.

Application Notes

Titration of the Cleaved LC3A antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 89-120 from the human protein was used as the immunogen for this ATG8a / Cleaved LC3A antibody.

Storage

Aliquot the Cleaved LC3A antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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