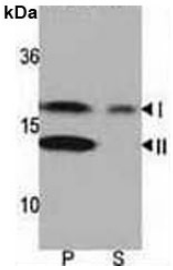
LC3A Antibody / MAP1LC3A (F46103)

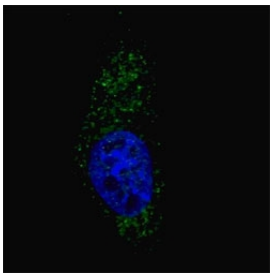
Catalog No.	Formulation	Size
F46103-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F46103-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

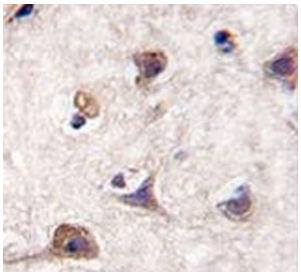
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q9H492
Applications	Western Blot : 1:1000 Immunofluorescence : 1:200 IHC (Paraffin) : 1:50-1:100
Limitations	This LC3 antibody is available for research use only.



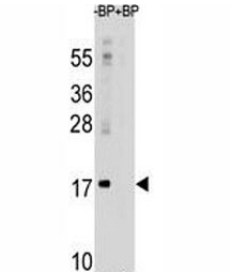
Western blot analysis of LC3 antibody and rat brain lysate: Both lipidated (arrow, II) and non-lipidated (arrow, I) were detected in membrane fraction (P) but only non-lipidated LC3 was detected in soluble fraction (S).



Fluorescent image of Chloroquine treated U251 cells (50 uM, 16h) stained with LC3 antibody. LC3 immunoreactivity is localized to autophagic vacuoles.



IHC analysis of FFPE human brain tissue stained with LC3 antibody



LC3 antibody western blot analysis in mouse brain tissue lysate

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 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 LC3 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 1-30 from human MAP1LC3A was used as the immunogen for this LC3 antibody.

Storage

Aliquot the LC3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.