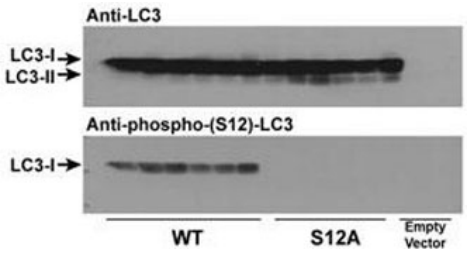
Phospho-LC3C Antibody (pS12) (F48472)

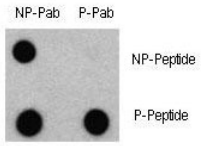
Catalog No.	Formulation	Size
F48472-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48472-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

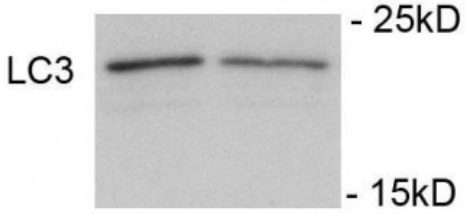
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Bovine, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q9H492
Applications	Western Blot : 1:1000 Dot Blot : 1:500
Limitations	This phospho-LC3C antibody is available for research use only.



Wild type LC3 and LC3 S12A mutant vectors were transfected into CHO cells and tested with phospho-LC3C antibody (S12A = replacement of the amino acid position 12 serine of LC3 with alanine). Expected molecular weight: LC3-I = 16kDa, and LC3-II = 14 kDa.

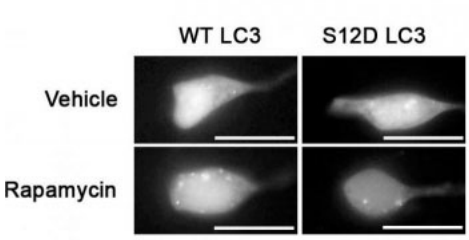


Dot blot analysis of phospho-LC3C antibody and nonphos Ab. 50ng of phos-peptide or nonphos-peptide per dot were spotted.



Immunoblots of SH-SY5Y cells treated with rapamycin for 1 h was probed with phospho-LC3C antibody. The data shows that treatment with rapamycin showed no significant change in level of LC3.

Immunoblots of SH-SY5Y cells treated with MPP+ for 24h was probed with phospho-LC3C antibody. The data shows that treatment with MPP+ showed no significant change in level of LC3.



SH-SY5Y cells expressing GFP-LC3-WT or-S12D mutation (reduced puncta) treated with rapamycin or vehicle for 1h and probed with phospho-LC3C antibody

Description

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. 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).

Application Notes

Titration of the phospho-LC3C antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This phospho-LC3C antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS12 of human LC3C.

Storage

Aliquot the phospho-LC3C antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

MAP1A/MAP1B light chain 3C