

## ARG54707 anti-LC3B antibody

Package: 200 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes LC3B
Tested Reactivity	Hu, Ms
Predict Reactivity	Bov
Tested Application	ICC/IF, IHC, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	LC3B
Species	Human
Immunogen	KLH-conjugated synthetic peptide around aa. 1-30 (N-terminus) of Human LC3 protein (NP_073729.1).
Conjugation	Un-conjugated
Alternate Names	Microtubule-associated proteins 1A/1B light chain 3B; MAP1A/MAP1B light chain 3 B; MAP1A/1BLC3; MAP1 light chain 3-like protein 2; Autophagy-related protein LC3 B; MAP1A/MAP1B LC3 B; LC3B; MAP1LC3B-a; ATG8F; Microtubule-associated protein 1 light chain 3 beta; Autophagy-related ubiquitin-like modifier LC3 B

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:100
	IHC	1:50 - 1:100
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

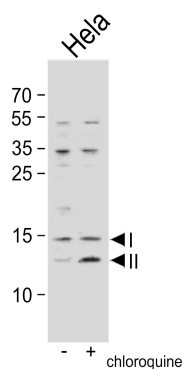
### Properties

Purification	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformatics

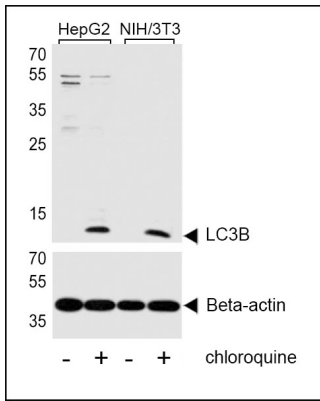
Database links	<a href="#">GeneID: 67443 Mouse</a> <a href="#">GeneID: 81631 Human</a> <a href="#">Swiss-port # Q9CQV6 Mouse</a> <a href="#">Swiss-port # Q9GZQ8 Human</a>
Gene Symbol	MAP1LC3B
Gene Full Name	microtubule-associated protein 1 light chain 3 beta
Background	The product of this gene is a subunit of neuronal microtubule-associated MAP1A and MAP1B proteins, which are involved in microtubule assembly and important for neurogenesis. Studies on the rat homolog implicate a role for this gene in autophagy, a process that involves the bulk degradation of cytoplasmic component. [provided by RefSeq, Jul 2008]
Function	Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes). Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation. Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway. [From Uniprot]
Highlight	Related products: <a href="#">LC3B antibodies: LC3B Duos / Panels: Anti-Rabbit IgG secondary antibodies:</a>
Research Area	Autophagy Study antibody
PTM	The precursor molecule is cleaved by 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 (PubMed:15187094). The Legionella effector RavZ is a deconjugating enzyme that produces an ATG8 product that would be resistant to re-conjugation by the host machinery due to the cleavage of the reactive C-terminal glycine. Phosphorylation at Thr-12 by PKA inhibits conjugation to phosphatidylethanolamine (PE) (By similarity). Interaction with MAPK15 reduces the inhibitory phosphorylation and increases autophagy activity.
Cellular Localization	Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Note=LC3-II binds to the autophagic membranes Localizes also to discrete punctae along the ciliary axoneme (By similarity).

## Images



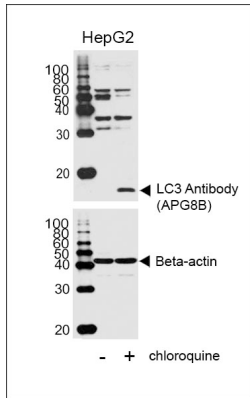
ARG54707 anti-LC3B antibody WB image

Western blot: untreated or treated HeLa cell lysate stained with ARG54707 anti-LC3B antibody. Both non-lipidated (arrow, I) and lipidated LC3 (APG8b) (arrow, II) were detected. But pro-LC3 (APG8b) and non-lipidated LC3 (APG8b) were detected in soluble fraction (S).



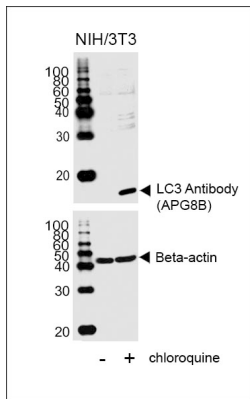
ARG54707 anti-LC3B antibody WB image

Western blot: lysates from HepG2, mouse NIH/3T3 cell line, untreated or treated with 50uM chloroquine, stained with ARG54707 anti-LC3B antibody (upper) or Beta-actin (lower).



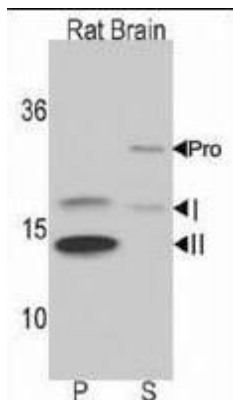
ARG54707 anti-LC3B antibody WB image

Western blot: HepG2 cell lysates untreated or treated with chloroquine stained with ARG54707 anti-LC3B antibody (upper) or Beta-actin (lower).



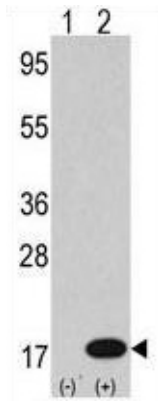
ARG54707 anti-LC3B antibody WB image

Western blot: NIH/3T3 cell lysates untreated or treated with chloroquine, stained with ARG54707 anti-LC3B antibody (upper) or Beta-actin (lower).



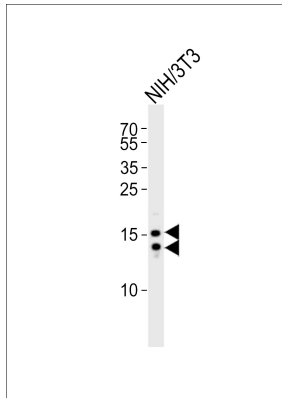
ARG54707 anti-LC3B antibody WB image

Western blot: rat brain lysate stained with ARG54707 anti-LC3B antibody. Both non-lipidated (arrow, I) and lipidated LC3 (APG8b) (arrow, II) were detected in membrane fraction (P) but pro-LC3 (APG8b) and non-lipidated LC3 ((APG8b) were detected in soluble fraction (S).



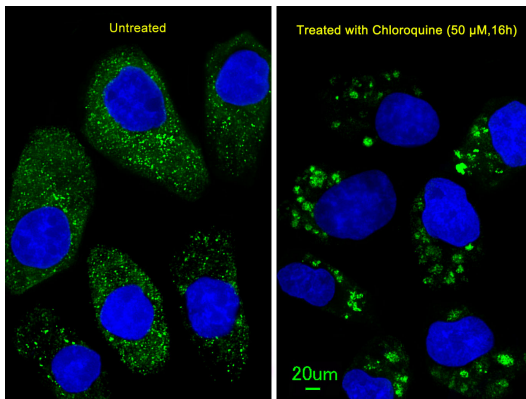
ARG54707 anti-LC3B antibody WB image

Western blot: 2 µg of 293 cell line lysates transiently transfected with the LC3 (APG8b) gene stained with ARG54707 anti-LC3B antibody.



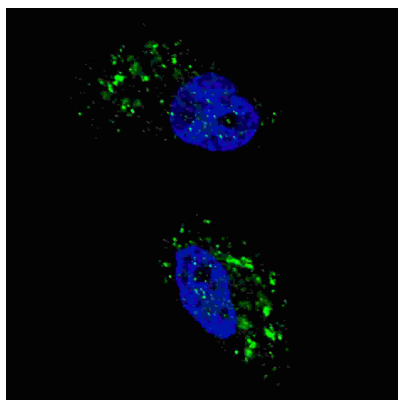
ARG54707 anti-LC3B antibody WB image

Western blot: 20 µg of mouse NIH/3T3 cell line lysate stained with ARG54707 anti-LC3B antibody at 1:1000 dilution.



ARG54707 anti-LC3B antibody ICC/IF image

Immunofluorescence: U251 cells stained with ARG54707 anti-LC3B antibody at 1:25 dilution. U251 cells (right) were treated with Chloroquine (50 µM, 16h). DAPI was used to stain the cell nuclear (blue).



ARG54707 anti-LC3B antibody ICC/IF image

Immunofluorescence: U251 cells stained with ARG54707 anti-LC3B antibody at 1:100 dilution, 2h, room temperature. U251 cells were treated with Chloroquine (50 µM, 16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). LC3 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.