

ARG54709 anti-LC3A antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes LC3A
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	LC3A
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 1-30 (N-terminus) of Human LC3A (NP_115903.1).
Conjugation	Un-conjugated
Alternate Names	MAP1A/MAP1B light chain 3 A; MAP1BLC3; LC3; MAP1 light chain 3-like protein 1; MAP1A/MAP1B LC3 A; Autophagy-related protein LC3 A; Microtubule-associated protein 1 light chain 3 alpha; MAP1ALC3; Microtubule-associated proteins 1A/1B light chain 3A; LC3A; ATG8E; Autophagy-related ubiquitin-like modifier LC3 A

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:200
	IHC-P	Assay-dependent
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Mouse brain	

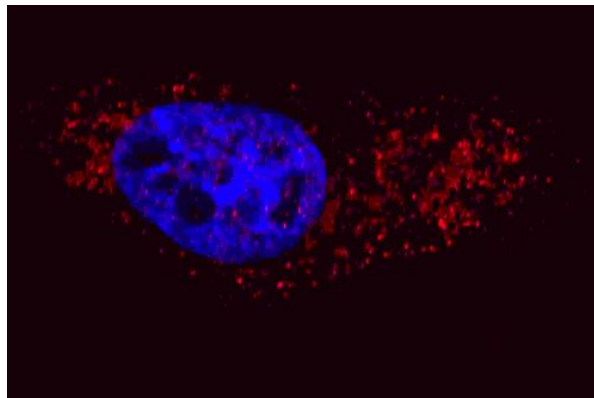
Properties

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.

Bioinformation

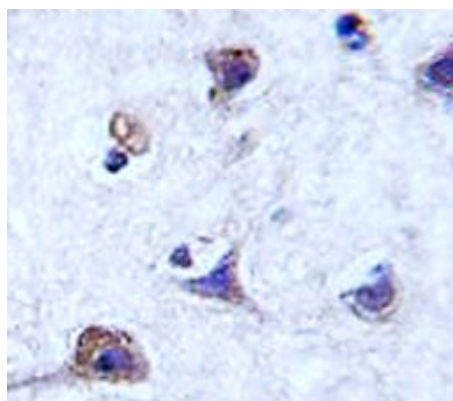
Gene Symbol	MAP1LC3A
Gene Full Name	microtubule-associated protein 1 light chain 3 alpha
Background	MAP1A and MAP1B are microtubule-associated proteins which mediate the physical interactions between microtubules and components of the cytoskeleton. MAP1A and MAP1B each consist of a heavy chain subunit and multiple light chain subunits. The protein encoded by this gene is one of the light chain subunits and can associate with either MAP1A or MAP1B. Two transcript variants encoding different isoforms have been found for this gene. The expression of variant 1 is suppressed in many tumor cell lines, suggesting that may be involved in carcinogenesis. [provided by RefSeq, Feb 2012]
Function	Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes). Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation. [From Uniprot]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	14 kDa
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 Ser-12 by PKA inhibits conjugation to phosphatidylethanolamine (PE). 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

Images



ARG54709 anti-LC3A antibody ICC/IF image

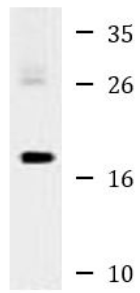
Immunofluorescence: U251 cells were treated with Chloroquine (50 μ M, 16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then stained with ARG54709 anti-LC3A antibody (1:200, 2 h at room temperature, red). Nuclei were counterstained with Hoechst 33342 (blue) (10 μ g/ml, 5 min). LC3 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.



ARG54709 anti-LC3A antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human brain tissue stained with ARG54709 anti-LC3A antibody.

ARG54709 anti-LC3A antibody WB image



Western blot: 35 µg of Mouse brain lysate stained with ARG54709 anti-LC3A antibody.

Mouse brain