ARG54670
anti-LC3 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes LC3
Tested Reactivity	Hu, Ms, Rat
Tested Application	ELISA, IHC-P, WB
Specificity	MAP1LC3 antibody is human, mouse and rat reactive. Multiple isoforms MAP1LC3 are known to exist. MAP1LC3 antibody is predicted to detect MAP1LC3A, MAP1LC3B, and MAP1LC3C.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	LC3
Immunogen	Synthetic peptide (12 aa) within aa. 20-70 of Human MAP1LC3A.
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
ELISA	Assay-Dependent
IHC-P	Assay-Dependent
WB	0.5 - 1 µg/ml

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Human Brain Tissue Lysate
Observed Size	18 kDa

Properties

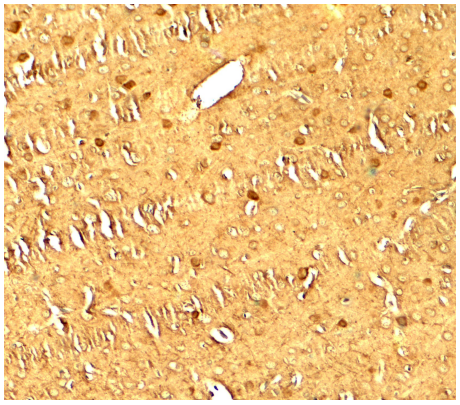
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Concentration	1 mg/ml

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.

Bioinformation

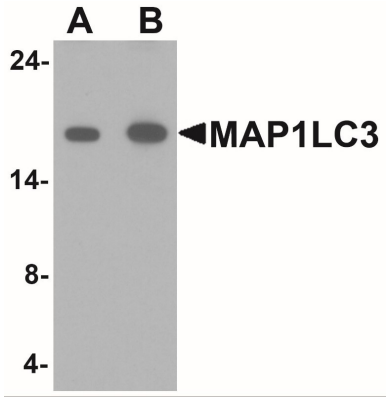
Gene Symbol	MAP1LC3A
Gene Full Name	microtubule-associated protein 1 light chain 3 alpha
Background	Microtubule-associated proteins (MAPs) regulate microtubule stability and play critical roles in neuronal development and plasticity (1). MAP1LC3 is a subfamily of three related proteins belonging to the MAP1 LC3 family and it includes MAP1LC3A, MAP1LC3B, and MAP1LC3C (2). MAP1LC3 is the mammalian homolog of yeast ATG8 and is essential for autophagy and associated with the autophagosome membranes after processing (3). The three isoforms exhibit distinct expression patterns and both MAP1LC3A and MAP1LC3B but not MAP1LC3B, are post-translationally modified, suggesting the three isoforms may have different physiological functions (4). |
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 reconjugation 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.

Images



ARG54670 anti-MAP1LC3 antibody IHC image

Immunohistochemistry: rat brain tissue stained with ARG54670 anti-MAP1LC3 antibody at 5 µg/ml.



ARG54670 anti-MAP1LC3 antibody WB image

Western blot: human brain tissue lysate stained with ARG54670 anti-MAP1LC3 antibody at (A) 1 and (B) 2 µg/ml.