ARG55799
anti-LC3B antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes LC3B
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	LC3B
Species	Human
Immunogen	Synthetic peptide of Human LC3B.
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	1:50 - 1:200
IHC-P	1:50 - 1:200
WB	1:500 - 1:2000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

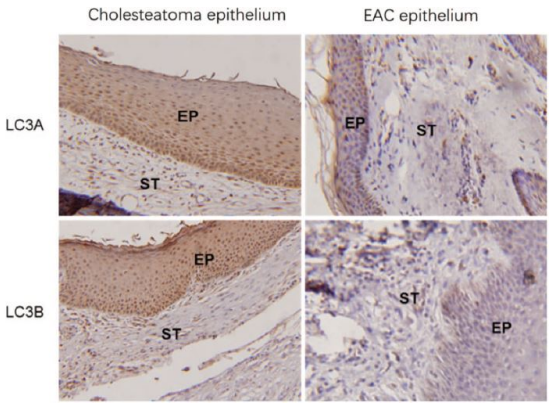
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide, 50% Glycerol and 0.05% BSA.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol and 0.05% BSA
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. 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	MAP1LC3B
Gene Full Name	microtubule-associated protein 1 light chain 3 beta
Background	LC3B 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	LC3B is an 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. Through its interaction with the reticulophagy receptor TEX264, paticipates in the remodeling of subdomains of the endoplasmic reticulum into autophagosomes upon nutrient stress, which then fuse with lysosomes for endoplasmic reticulum turnover (PubMed:31006538, PubMed:31006537). [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30273 LC3A and LC3B Antibody Duo ARG30321 Autophagy Antibody Panel Related products: LC3B antibodies; LC3B Duos / Panels; Anti-Rabbit IgG secondary antibodies; Related news: Keap1-Nrf2-ARE antibody panel is launched Understanding Your Cells: Choose the right markers Freeze! Scientists found a way to stop tumor migration New Autophagy antibody panel is released Therapeutic strategies against PDAC
Research Area	Autophagy Study antibody
Calculated Mw	15 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 Thr-12 by PKA inhibits conjugation to phosphatidylethanolamine (PE) (By similarity). Interaction with MAPK15 reduces the inhibitory phosphorylation and increases autophagy activity.

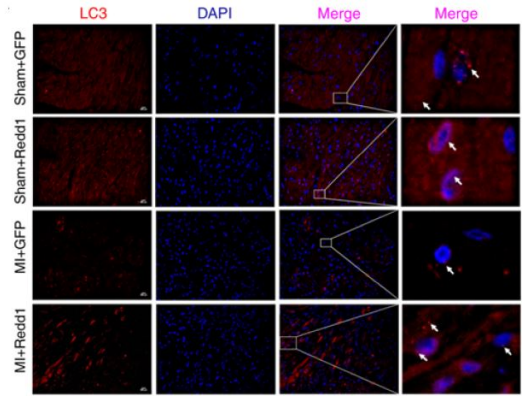
Images



ARG55799 anti-LC3B antibody IHC-P image

Immunohistochemistry: Human epithelium stained with ARG51300 anti-LC3A antibody and ARG55799 anti-LC3B antibody.

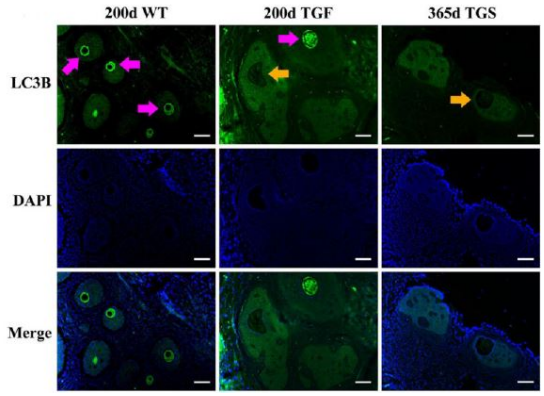
From Li Q et al. Otol Neurotol (2019), doi: 10.1097/MAO.0000000000002404, Fig. 2.



ARG55799 anti-LC3B antibody ICC/IF image

Immunofluorescence: Mouse heart stained with ARG55799 anti-LC3B antibody.

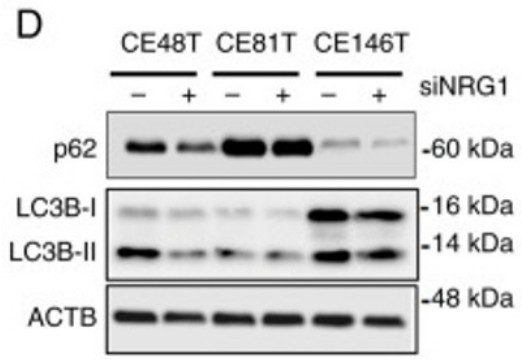
From Huang P et al. Int J Mol Med- (2019), doi: 10.3892/ijmm.2019.4366, Fig. 5. D.



ARG55799 anti-LC3B antibody IHC-P image

Immunohistochemistry: Porcine ovarian stained with ARG55799 anti-LC3B antibody.

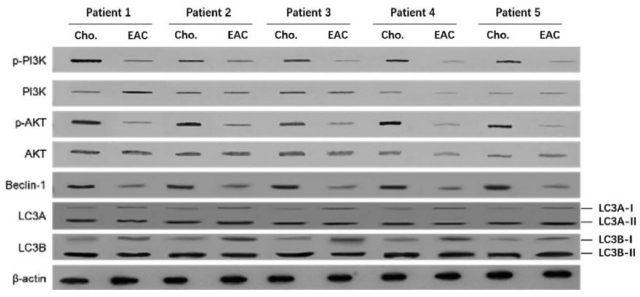
From Yufeng Qin et al. Preprint- (2019), doi: 10-1101-724096, Fig. 5. C.



ARG55799 anti-LC3B antibody WB image

Western blot: ESCC cell stained with ARG55799 anti-LC3B antibody and ARG55040 anti-SQSTM1 / p62 antibody.

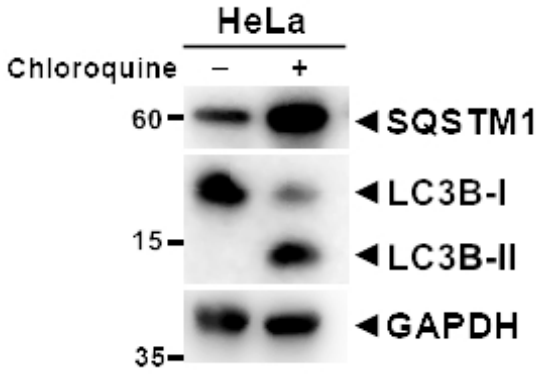
From Tseng YC et al. Int J Mol Med. (2025), doi: 10.3892/ijmm.2025.5503, Fig. 5. D.



ARG55799 anti-LC3B antibody WB image

Western blot: Mouse heart stained with ARG51300 anti-LC3A antibody and ARG55799 anti-LC3B antibody.

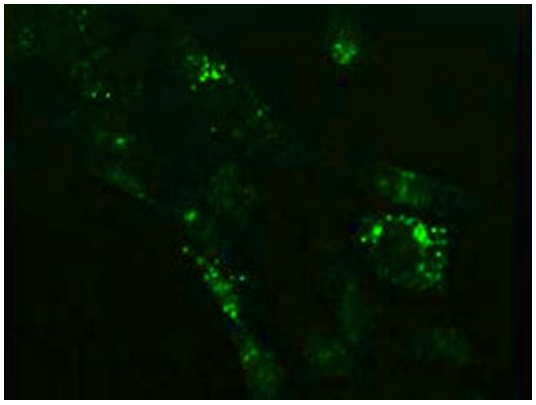
From Li Q et al. Otol Neurotol (2019), doi: 10.1097/MAO.0000000000002404, Fig. 2.



ARG55799 anti-LC3B antibody WB image (Customer's Feedback)

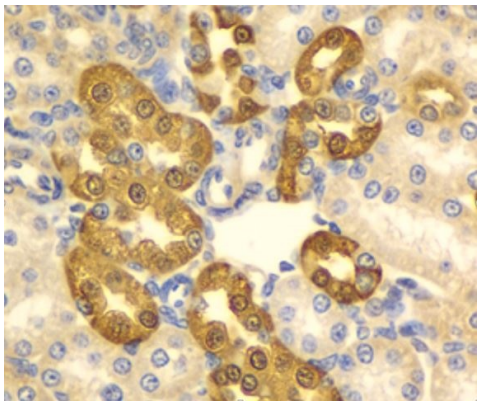
Western blot: HeLa cells untreated or treated with Chloroquine. 20 µg of cell lysates stained with ARG55040 anti-SQSTM1 / p62 antibody and ARG55799 anti-LC3B antibody at 1:1000 dilution.

An anti-GAPDH antibody used as a positive control.



ARG55799 anti-LC3B antibody ICC/IF image

Immunofluorescence: NIH/3T3 cells treated with Chloroquine (50 µM, 37°C for 20 hours). Cells were stained with ARG55799 anti-LC3B antibody at 1:100 dilution.

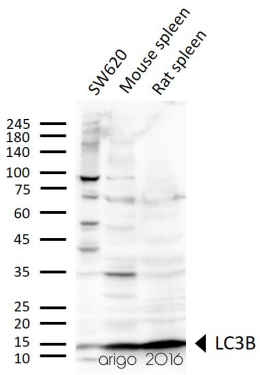


ARG55799 anti-LC3B antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat kidney stained with ARG55799 anti-LC3B antibody at 1:100 dilution.

ARG55799 anti-LC3B antibody WB image

Western blot: 30 µg of HeLa untreated or treated with Chloroquine at 50 µM, 100 µM (18 hr). The bolts stained with ARG55799 anti-LC3B antibody at 1:1000 dilution.



ARG55799 anti-LC3B antibody WB image

Western blot: 30 µg of SW620, Mouse spleen, and Rat spleen lysates stained with ARG55799 anti-LC3B antibody at 1:1000 dilution.