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KD-Validated Anti-MAP1LC3B Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1428

Specification

KD-Validated Anti-MAP1LC3B Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q9GZQ8
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 15 kDa; observed, 14,16 kDa KDa**
Gene Name	**MAP1LC3B**
Aliases	**MAP1LC3B; Microtubule Associated Protein 1 Light Chain 3 Beta 2; ATG8F 2; Microtubule-Associated Proteins 1A/1B Light Chain 3B; Autophagy-Related Ubiquitin-Like Modifier LC3 B; MAP1 Light Chain 3-Like Protein 2; MAP1A/MAP1B Light Chain 3 B; MAP1A/MAP1B LC3 B; Microtubule-Associated Protein 1 Light Chain 3 Beta; Autophagy-Related Protein LC3 B; MAP1A/1BLC3; MAP1LC3B-A; MAP1ALC3; LC3B**
Immunogen	**A synthesized peptide derived from human LC3B**

KD-Validated Anti-MAP1LC3B Rabbit Monoclonal Antibody - Additional Information

Gene ID	**81631**

Other Names
Microtubule-associated protein 1 light chain 3 beta, Autophagy-related protein LC3 B, Autophagy-related ubiquitin-like modifier LC3 B, MAP1 light chain 3-like protein 2, Microtubule-associated proteins 1A/1B light chain 3B, MAP1A/MAP1B LC3 B, MAP1A/MAP1B light chain 3 B, MAP1LC3B (HGNC:13352), MAP1ALC3

KD-Validated Anti-MAP1LC3B Rabbit Monoclonal Antibody - Protein Information

Name MAP1LC3B (HGNC:13352)

Synonyms MAP1ALC3

Function
Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes) (PubMed:20418806,

PubMed:23209295, PubMed:28017329). 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 (PubMed:23209295, PubMed:28017329). In response to cellular stress and upon mitochondria fission, binds C-18 ceramides and anchors autophagolysosomes to outer mitochondrial membranes to eliminate damaged mitochondria (PubMed:22922758). While LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation (PubMed:20418806, PubMed:23209295, PubMed:28017329). Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway (PubMed:24089205). Through its interaction with the reticulophagy receptor TEX264, participates in the remodeling of subdomains of the endoplasmic reticulum into autophagosomes upon nutrient stress, which then fuse with lysosomes for endoplasmic reticulum turnover (PubMed:31006537, PubMed:31006538). Upon nutrient stress, directly recruits cofactor JMY to the phagophore membrane surfaces and promotes JMY's actin nucleation activity and autophagosome biogenesis during autophagy (PubMed:30420355).

Cellular Location
Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor Endomembrane system; Lipid-anchor Mitochondrion membrane; Lipid-anchor. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q9CQV6}. Cytoplasmic vesicle. Note=LC3-II binds to the autophagic membranes. LC3-II localizes with the mitochondrial inner membrane during Parkin-mediated mitophagy (PubMed:28017329). Also localizes to discrete punctae along the ciliary axoneme

Tissue Location
Most abundant in heart, brain, skeletal muscle and testis. Little expression observed in liver

KD-Validated Anti-MAP1LC3B Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-MAP1LC3B Rabbit Monoclonal Antibody - Images

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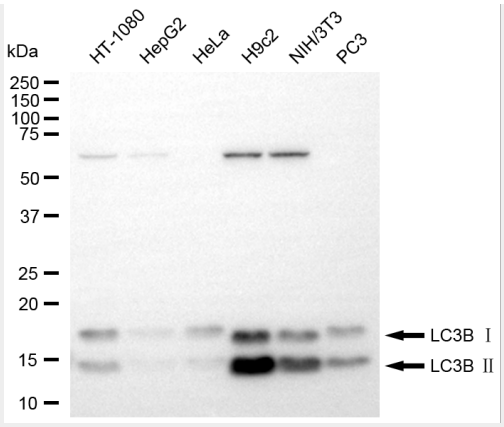
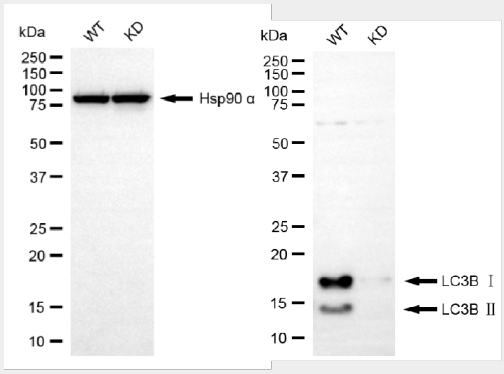
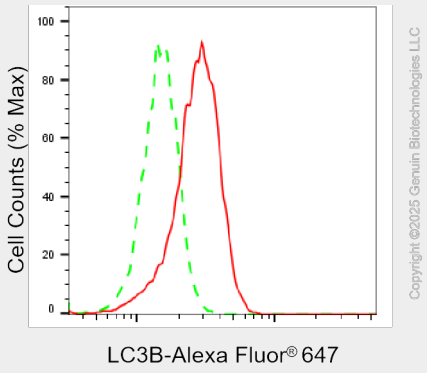


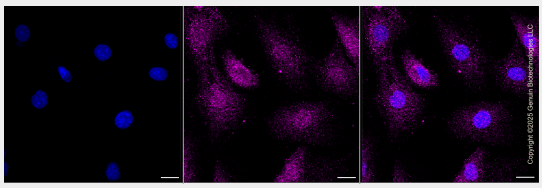
Western blotting analysis using anti-LC3B antibody (Cat#AGI1428). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-LC3B antibody (Cat#AGI1428, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-LC3B antibody (Cat#AGI1428). LC3B expression in wild-type (WT) and MAP1LC3B knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-LC3B antibody (Cat#AGI1428, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of LC3B expression in H9c2 cells using anti-LC3B antibody (Cat#AGI1428, 1:2,000). Green, isotype control; red, LC3B.



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Immunocytochemical staining of H9C2 cells with anti-LC3B antibody (Cat#AGI1428, 1:1,000). Nuclei were stained blue with DAPI; LC3B was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.