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APG8b(MAP1LC3B) Antibody (N-term T29)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12484a

Specification

APG8b(MAP1LC3B) Antibody (N-term T29) - Product Information

Application	**WB, IHC-P-Leica, FC,E**
Primary Accession	Q9GZQ8
Other Accession	A6NCE7, Q62625, Q9CQV6, O41515, NP_073729.1
Reactivity	**Human, Mouse**
Predicted	**Bovine, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**9-33**

APG8b(MAP1LC3B) Antibody (N-term T29) - Additional Information

Gene ID 81631

Other Names
Microtubule-associated proteins 1A/1B light chain 3B, Autophagy-related protein LC3 B, 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, MAP1LC3B, MAP1ALC3

Target/Specificity
This APG8b(MAP1LC3B) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 9-33 amino acids from the N-terminal region of human APG8b(MAP1LC3B).

Dilution
WB~~1:1000
IHC-P-Leica~~1:500
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
APG8b(MAP1LC3B) Antibody (N-term T29) is for research use only and not for use in diagnostic or therapeutic procedures.

APG8b(MAP1LC3B) Antibody (N-term T29) - 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). Localizes also to discrete punctae along the ciliary axoneme

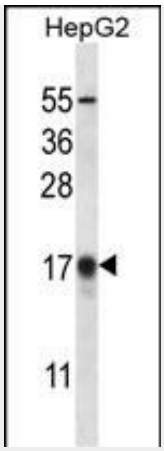
Tissue Location
Most abundant in heart, brain, skeletal muscle and testis. Little expression observed in liver

APG8b(MAP1LC3B) Antibody (N-term T29) - Protocols

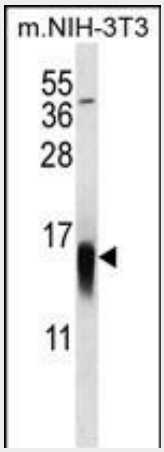
Provided below are standard protocols that you may find useful for product applications.

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

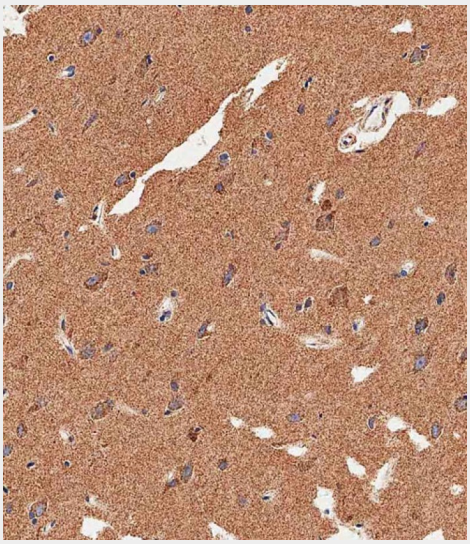
APG8b(MAP1LC3B) Antibody (N-term T29) - Images



APG8b(MAP1LC3B) Antibody (T29) (Cat. #AP12484a) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the APG8b(MAP1LC3B) antibody detected the APG8b(MAP1LC3B) protein (arrow).

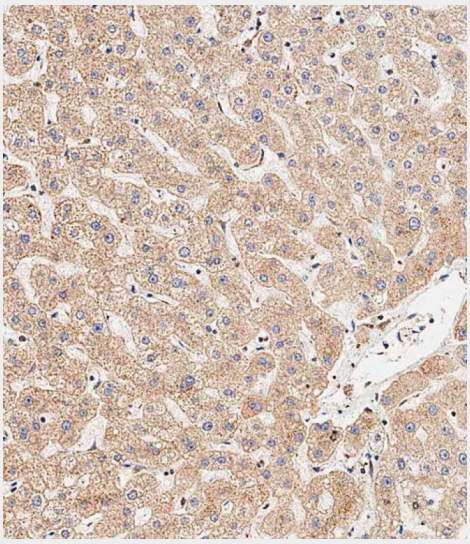


APG8b(MAP1LC3B) Antibody (T29) (Cat. #AP12484a) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane).This demonstrates the APG8b(MAP1LC3B) antibody detected the APG8b(MAP1LC3B) protein (arrow).

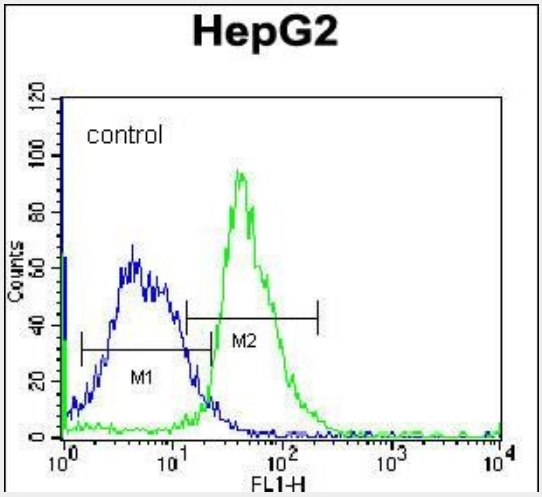


Immunohistochemical analysis of paraffin-embedded human brain tissue using AP12484a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with

primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded human liver tissue using AP12484a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



APG8b(MAP1LC3B) Antibody (N-term T29) (Cat. #AP12484a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

APG8b(MAP1LC3B) Antibody (N-term T29) - 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.

APG8b(MAP1LC3B) Antibody (N-term T29) - References

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