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Anti-LC3B MAP1LC3B Rabbit Monoclonal Antibody

Catalog # ABO13488

Product Information

Application	WB, IF, ICC, IP
Primary Accession	Q9GZQ8
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-LC3B MAP1LC3B Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

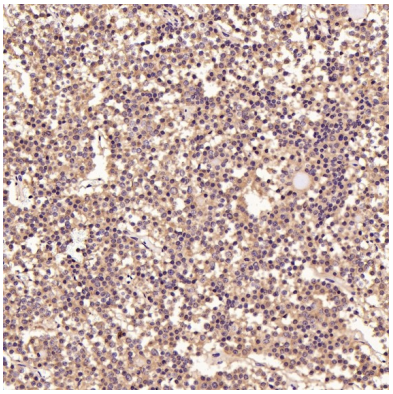
Gene ID	81631
Other Names	Microtubule-associated proteins 1A/1B light chain 3B, Autophagy-related protein LC3 B, Autophagy-related ubiquitin-like modifier LC3 B, MAP1 light chain 3-like protein 2, MAP1A/MAP1B light chain 3 B, MAP1A/MAP1B LC3 B, Microtubule-associated protein 1 light chain 3 beta, MAP1LC3B (HGNC:13352), MAP1ALC3
Calculated MW	14688
Application Details	WB 1:500-1:2000 ICC/IF 1:50-1:200 IP 1:50
Subcellular Localization	Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Cytoplasmic vesicle, autophagosome. LC3-II binds to the autophagic membranes. Localizes also to discrete punctae along the ciliary axoneme (By similarity)..
Tissue Specificity	Most abundant in heart, brain, skeletal muscle and testis. Little expression observed in liver..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: IEC-13
Immunogen	A synthesized peptide derived from human LC3B
Purification	Affinity-chromatography

Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

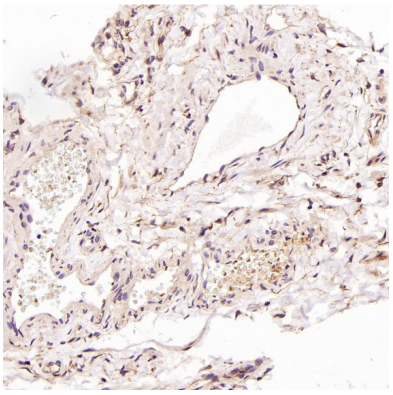
Protein Information

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

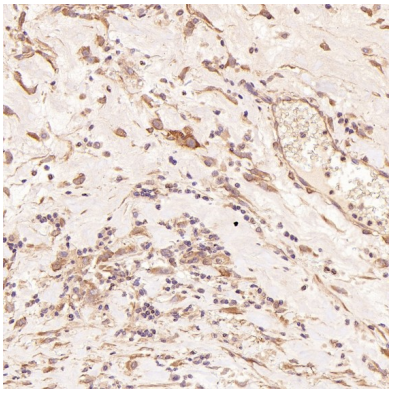
Images



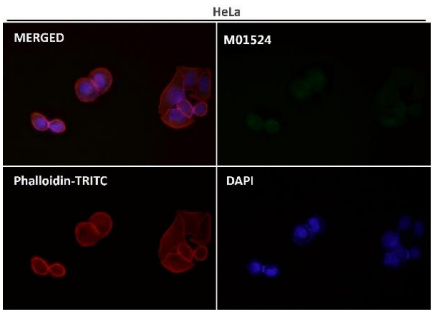
Immunohistochemical analysis of paraffin-embedded Human pituitary tumor, using the Antibody at 1:50 dilution.



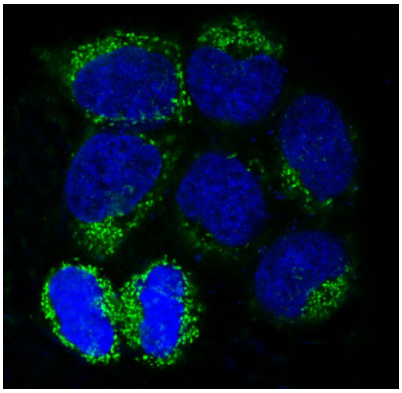
Immunohistochemical analysis of paraffin-embedded Human testis cancer, using the Antibody at 1:200 dilution.



Immunohistochemical analysis of paraffin-embedded Human esophageal carcinoma, using the Antibody at 1:50 dilution.

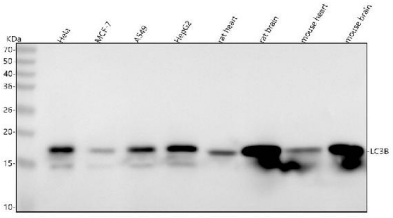


Immunofluorescent analysis using the Antibody at 1:150 dilution.



Immunofluorescent analysis of Hela cells treated with choroquine, using LC3B Antibody.

Figure 1. Western blot analysis of LC3B using anti-LC3B antibody (M01524).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human MCF-7 whole cell lysates,
Lane 3: human A549 whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: rat heart tissue lysates,



Lane 6: rat brain tissue lysates,
Lane 7: mouse heart tissue lysates,
Lane 8: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LC3B antigen affinity purified monoclonal antibody (Catalog # M01524) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for LC3B at approximately 18 kDa. The expected band size for LC3B is at 16 kDa.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.