Data Sheet (Cat.No.TMAH-00723)

TargetMol

Anti-MAP1LC3B Antibody (3M54)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	3M54
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in: HepG2 whole cell lysate,U87 whole cell lysate,RAW264.7 whole cell lysate,U251 whole cell lysate,Hela whole cell lysate -All lanes: LC3B antibody at 1:500 -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 15 kDa -Observed band size: 15 kDa 2. Overlay Peak curve showing Hela cells stained with TMAH-00723 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1μg/1*10^6 cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG (H+L) at 1:200 dilution for 35min at 4°C.Control antibody (green line) was rabbit IgG (1μg/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.
Application:	ELISA, WB, FCM
Recommended	WB:1:500-1:2000; FCM:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human MAP1LC3B
Antigen Species:	Human
Gene ID:	81631
Uniprot ID:	Q9GZQ8
Synonyms:	MAP1 light chain 3-like protein 2;Autophagy-related protein LC3 B;Microtubule-associated proteins 1A/1B light chain 3B;MAP1A/MAP1B light chain 3 B;MAP1A/MAP1B LC3 B;Microtubule-associated protein 1 lig;Autophagy-related ubiquitin-like modifier LC3 B
Biology Area:	Neuroscience, Cancer, Cardiovascular, Metabolism, Signal transduction

Research Background

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. In response to cellular stress and upon mitochondria fission, binds C-18 ceramides and anchors autophagolysosomes to outer mitochondrial membranes to eliminate damaged mitochondria. While 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, participates in the remodeling of subdomains of the endoplasmic reticulum into autophagosomes upon nutrient stress, which then fuse with lysosomes for endoplasmic reticulum turnover.

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