MAP1LC3A Protein, Human (His)

Cat. No.:	HY-P70916
Synonyms:	Microtubule-Associated Proteins 1A/1B Light Chain 3A; Autophagy-Related Protein LC3 A; Autophagy-Related Ubiquitin-Like Modifier LC3 A; MAP1 Light Chain 3-Like Protein 1; MAP1A/MAP1B Light Chain 3 A; MAP1A/MAP1B LC3 A; Microtubule-Associated Protein 1 Light Cha
Species:	Human
Source:	E. coli
Accession:	Q9H492 (M1-F121)
Gene ID:	84557
Molecular Weight:	Approximately 16.0 kDa

PROPERTIES

AA Sequence	M P S D R P F K Q R R S F A D R C K E V Q Q I R D Q H P S K I P V I I E R Y K G E K Q L P V L D K T K F L V P D H V N M S E L V K I I R R R L Q L N P T Q A F F L L V N Q H S M V S V S T P I A D I Y E Q E K D E D G F L Y M V Y A S Q E T F G F
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris, 20% Glycerol, 0.1 M NaCl, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	MAP1LC3A, a ubiquitin-like modifier, plays a crucial role in autophagosomal vacuole formation, contributing to cellular homeostasis. While participating in the elongation of the phagophore membrane, MAP1LC3A, belonging to the GABARAP/GATE-16 subfamily, assumes a vital role in the later stages of autophagosome maturation. It engages in the remodeling of endoplasmic reticulum subdomains into autophagosomes in response to nutrient stress, facilitating their subsequent fusion with lysosomes for endoplasmic reticulum turnover. With three different light chains (LC1, LC2, and LC3), it can associate with MAP1A and MAP1B proteins. MAP1LC3A exhibits a diverse interactome, engaging with proteins like TP53INP1, TP53INP2, SQSTM1 for inclusion body degradation, ATG13, ULK1, TBC1D5, UBQLN1, UBQLN2, UBQLN4, TRIM5, MEFV, and others. These interactions underscore the multifaceted role of MAP1LC3A in various cellular processes, including

	autophagy, protein aggregate degradation, and the regulation of reticulophagy.

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