Recombinant MLP3A protein (His tag)

Catalog Number	543615
Synonyms	Autophagy-related protein LC3 A; Autophagy-related ubiquitin-like modifier LC3 A; MAP1 light chain 3-like protein 1; Microtubule-associated proteins 1A/1B light chain 3A; MAP1A/MAP1B LC3 A; MAP1A/MAP1B light chain 3 A
Species	Human
Expression System	E. coli
Accession	Q9H492
Molecular Weight	Predictes a molecular mass of 15.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	1-120
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-120 aa (Q9H492) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Microtubule-associated protein 1 light chain 3 alpha (MAP1LC3A) fragment (residues 1-120) is a high-purity, stable protein designed for autophagy research. This fragment encompasses a soluble and structurally defined region, ideal for biochemical assays, structural studies, and investigating LC3A's role in autophagosome formation. Microtubule-associated protein 1 light chain 3 alpha (LC3A) is a ubiquitin-like modifier essential for autophagosome formation during autophagy. It functions in the elongation of phagophore membranes and, through interactions with receptors like TEX264, facilitates the remodeling of endoplasmic reticulum subdomains into autophagosomes under nutrient stress, enabling targeted organelle turnover. LC3A localizes to autophagosome membranes as a lipid-anchored protein and is also found in the cytoplasm and cytoskeleton, highlighting its central role in cellular quality control and stress response pathways.