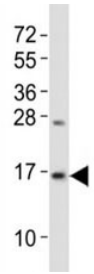
Zebrafish LC3B Antibody / MAP1LC3B (F53289)

Catalog No.	Formulation	Size
F53289-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F53289-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Zebrafish
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q7ZUD8
Applications	Western Blot : 1:2000
Limitations	This zebrafish LC3B antibody is available for research use only.



Western blot testing of LC3B antibody at 1:2000 dilution + mouse brain lysate; Predicted band size : 15 kDa.

Description

Microtubule-associated proteins 1A/1B light chain 3B (Map1lc3b) is a highly conserved autophagy-related protein in zebrafish (Danio rerio), serving as a key component of the autophagosome membrane. It is the zebrafish ortholog of mammalian LC3B, which is widely used as a molecular marker for autophagosomes and autophagic activity.

Zebrafish Map1lc3b is initially synthesized as a cytosolic precursor (LC3-I), which undergoes post-translational cleavage and lipidation to form LC3-II, the autophagosome-associated form. This lipidated form binds to autophagic membranes, making Map1lc3b essential for autophagosome formation, maturation, and cargo recruitment.

In zebrafish, map1lc3b is expressed during early embryogenesis and throughout development, with increased expression observed in tissues undergoing high autophagic flux. It has become a widely used marker in transgenic zebrafish lines (e.g., Tg(CMV:map1lc3b-GFP)) for live imaging of autophagy under physiological and stress conditions, including nutrient deprivation, neurodegeneration, and toxin exposure.

The conserved role of Map1lc3b in autophagy makes it an important tool for studying cellular homeostasis, developmental processes, and disease models in zebrafish.

Application Notes

Titration of the zebrafish LC3B antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This LC3B antibody was produced from a rabbit immunized with a KLH conjugated synthetic peptide between 16-50 amino acids from the N-terminal region of zebrafish Map1lc3b.

Storage

Aliquot the Map1lc3b antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.