

**Mouse Anti-LC3 $\beta$  [G2]: MC0467, MC0467RTU7**

**Intended Use:** For Research Use Only

**Description:** Microtubule-associated proteins (MAP) regulate microtubule stability and play critical roles in neuronal development and in maintaining the balance between neuronal plasticity and rigidity. MAP-light chain 3 alpha (LC3 $\alpha$ ) and MAP-light chain 3 beta (LC3 $\beta$ ) are subunits of MAP1A and MAP1B. LC3 $\beta$ , a homolog of Apg8p, is essential for autophagy and associated to the autophagosome membranes after processing. Two forms of LC3 $\beta$ , the cytosolic LC3-I and the membrane-bound LC3-II, are produced post-translationally. LC3-I is formed by the removal of the C-terminal 22 amino acids from newly synthesized LC3 $\beta$ , followed by the conversion of a fraction of LC3-I into LC3-II. LC3 enhances fibronectin mRNA translation in ductus arteriosus cells through association with 60S ribosomes and binding to an AU-rich element in the 3' untranslated region of fibronectin mRNA. This facilitates sorting of fibronectin mRNA onto rough endoplasmic reticulum and translation. LC3 $\beta$  is expressed primarily in heart, testis, brain and skeletal muscle.

**Specifications**

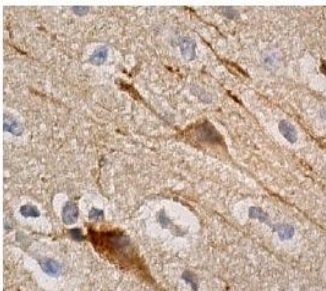
Clone:	G2
Source:	Mouse
Isotype:	IgG2b/k
Reactivity:	Human, mouse, rat
Immunogen:	N-terminus of human MAP LC3 $\beta$ aa 1-50
Localization:	Cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and $\leq$ 0.09% sodium azide (NaN <sub>3</sub> )
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, IF, IP, WB
Package:	

Description	Catalog No.	Size
LC3 $\beta$ [G2] Concentrated	MC0467	1 ml
LC3 $\beta$ [G2] Prediluted	MC0467RTU7	7 ml

**IHC Procedure\***

Positive Control Tissue:	Normal colon, normal cerebral cortex tissue
Concentrated Dilution:	25-100
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human brain tissue stained with anti-LC3 $\beta$  using DAB

**References:**

1. miR-376a-3p and miR-376b-3p overexpression in Hutchinson-Gilford progeria fibroblasts inhibits cell proliferation and induces premature senescence. Diane Frankel, et al. iScience. Jan 10;25(2):103757, 2022. doi: 10.1016/j.isci.2022.103757.
2. Triclosan-induced neuroinflammation develops caspase-independent and TNF- $\alpha$  signaling pathway associated necroptosis in Neuro-2a cells. Parul Katiyar, et al. Curr Res Toxicol. May 6;3:100072, 2022. doi: 10.1016/j.crttox.2022.100072.

Doc. 100-MC0467  
Rev. B