**BACKGROUND**

Microtubule-associated proteins (MAPs) regulate microtubule stability and play critical roles in neuronal development and in maintaining the balance between neuronal plasticity and rigidity. MAP-light chain 3β (MAP LC3β) and MAP-light chain 3αc (MAP LC3αc) are subunits of both MAP1A and MAP1B. MAP LC3β, a homolog of Apg8β, is essential for autophagy and associated to the autophagosome membranes after processing. Two forms of LC3β, the cytosolic LC3-I and the membrane-bound LC3-II, are produced posttranslationally. LC3-I is formed by the removal of the C-terminal 22 amino acids from cell 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. MAP LC3β may also be involved in formation of autophagosomal vacuoles. It is expressed primarily in heart, testis, brain and skeletal muscle.

**CHROMOSOMAL LOCATION**

Genetic locus: MAP1LC3B (human) mapping to 16q24.2, MAP1LC3B2 (human) mapping to 12q24.22; Map1lc3a (mouse) mapping to 2 H1, Map1lc3b (mouse) mapping to 8 E1.

**SOURCE**

MAP LC3β (G-2) is a mouse monoclonal antibody raised against amino acids 1-50 mapping at the N-terminus of MAP LC3β of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAP LC3β (G-2) is available conjugated to agarose (sc-271625 AC, 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271625 HRP), 200 µg/ml, for WB, IHC(β) and ELISA; to either phycoerythrin (sc-271625 PE), fluorescein (sc-271625 FITC), Alexa Fluor® 488 (sc-271625 AF488), Alexa Fluor® 546 (sc-271625 AF546), Alexa Fluor® 594 (sc-271625 AF594) or Alexa Fluor® 647 (sc-271625 AF647), 200 µg/ml, for WB (RGB), IF, IHC(β) and FCM; and to either Alexa Fluor® 680 (sc-271625 AF680) or Alexa Fluor® 790 (sc-271625 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

MAP LC3β (G-2) is recommended for detection of MAP LC3β and MAP LC3β2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). MAP LC3β (G-2) is also recommended for detection of MAP LC3β and MAP LC3β2 in additional species, including canine, bovine and porcine. Molecular Weight of MAP LC3β: 15 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, C6 whole cell lysate: sc-364373 or rat brain extract: sc-2392.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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SANTA CRUZ BIOTECHNOLOGY, INC.

**MAP LC3β (G-2): sc-271625**