

MAP LC3 β (H-50): sc-28266

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 3 β (MAP LC3 β) and MAP-light chain 3 α (MAP LC3 α) are subunits of both MAP1A and MAP1B. MAP LC3 β , a homolog of Apg8p, is essential for autophagy and associated to the autophagosome membranes after processing. Two forms of LC3 β , 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 newly synthesized LC3 β , 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. MAP LC3 β may also be involved in formation of autophagosomal vacuoles. It is expressed primarily in heart, testis, brain and skeletal muscle.

SOURCE

MAP LC3 β (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping at the N-terminus of MAP LC3 β of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as agarose conjugate for immunoprecipitation, sc-28266 AC, 500 μ g/0.25 ml agarose in 1 ml.

APPLICATIONS

MAP LC3 β (H-50) is recommended for detection of MAP LC3 β and MAP LC3 β 2 of human origin, MAP LC3 β of mouse and rat origin and, to a lesser extent, MAP LC3 α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 LC3 β (H-50) is also recommended for detection of MAP LC3 β , MAP LC3 β 2 and, to a lesser extent, MAP LC3 α in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of MAP LC3 β : 15 kDa.

Positive Controls: mouse brain extract: sc-2253 or IMR-32 cell lysate: sc-2409.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

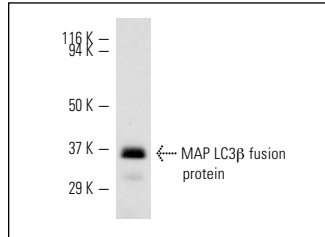
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

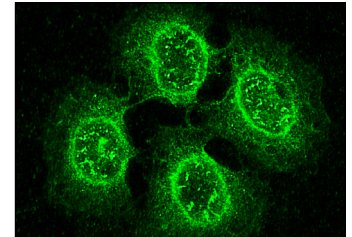
RESEARCH USE

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

DATA



MAP LC3 β (H-50): sc-28266. Western blot analysis of human recombinant MAP LC3 β fusion protein.



MAP LC3 β (H-50): sc-28266. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization.

SELECT PRODUCT CITATIONS

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- Ost, A., et al. 2010. Attenuated mTOR signaling and enhanced autophagy in adipocytes from obese patients with type 2 diabetes. *Mol. Med.* 16: 235-246.
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