MAP LC3β (G-9): sc-376404

**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-LC3β) and MAP-light chain 3 α (MAP-LC3α) are subunits of both MAP1A and MAP1B. MAP-LC3β, a homolog of Appβ, 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 post-translationally. LC3-I is forced by the removal of the C-terminal 22 amino acids from newly synthesized LC3β, 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 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; Map1lc3b (mouse) mapping to 8 E1.

**SOURCE**

MAP LC3β (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-39 near 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-9) is available conjugated to agarose (sc-376404 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376404 HRP), 200 µg/ml, for 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).

Suitable for use as control antibody for MAP LC3β siRNA (h); sc-43390, MAP LC3β shRNA (m); sc-43391, MAP LC3β shRNA Plasmid (h); sc-43390-SH, MAP LC3β shRNA Plasmid (m); sc-43391-SH, MAP LC3β shRNA (h) Lentiviral Particles: sc-43390-V and MAP LC3β shRNA (m) Lentiviral Particles: sc-43391-V.

**APPLICATIONS**

MAP LC3β (G-9) is recommended for detection of MAP LC3β and MAP LC3p2 of human origin and MAP LC3β of mouse and rat 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).

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, F9 cell lysate: sc-2245 or U-87 MG cell lysate: sc-2411.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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