Product datasheet

Anti-LC3B/MAP1LC3B antibody

Catalog Number: *PA01524*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-LC3B/MAP1LC3B antibody
Gene Name	MAP1LC3B
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, ICC/IF, Direct ELISA
Contents	500 ug/ml antibody with PBS，0.02% NaN3, 1 mg BSA and 50% glycerol.
Immunogen	Peptide
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	15,18KD
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Direct ELISA: 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

LC3B, also named as MAP1LC3B, MAP1A/1BLC3, belongs to the MAP1 LC3 family. It is a subunit of neuronal microtubule-associated MAP1A and MAP1B proteins, which are involved in microtubule assembly and important for neurogenesis. In cell biology, autophagy, or autophagocytosis, is a catabolic process involving the degradation of a cell's own components through the lysosomalmachinery. It is a major mechanism by which a starving cell reallocates nutrients from unnecessary processes to more-essential processes. Two forms of LC3, called LC3-I (17-19kd) and -II(14-16kd), were produced post-translationally in various cells. LC3-I is cytosolic, whereas LC3-II is membrane bound. The precursor molecule is cleaved by APG4B/ATG4B to form the cytosolic form, LC3-I. This is activated by APG7L/ATG7, transferred to ATG3 and conjugated to phospholipid to form the membrane-bound form, LC3-II. The amount of LC3-II is correlated with the extent of autophagosome formation. LC3-II is the first mammalian protein identified that specifically associates with autophagosome membranes. MAP1LC3 has 3 isoforms MAP1LC3A, MAP1LC3B and MAP1LC3C. MAP1LC3A and MAP1LC3C are produced by the proteolytic cleavage after the conserved C-terminal Gly residue, like their rat counterpart, MAP1LC3B does not undergo C-terminal cleavage and exists in a single modified form. This antibody is specific to LC3B.

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Selected Validation Data

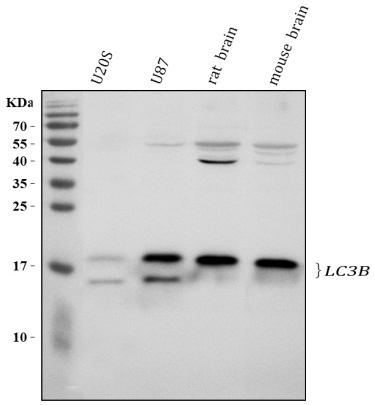

Figure 1. Western blot analysis of anti-LC3B/MAP1LC3B antibody (PA01524). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human U2OS whole cell lysates,
Lane 2: human U87 whole cell lysates,
Lane 3: rat brain tissue lysates,
Lane 4: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-LC3B/MAP1LC3B antigen affinity purified polyclonal antibody (PA01524) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for LC3B/MAP1LC3B at approximately 15,18 kDa. The expected band size for LC3B/MAP1LC3B is at 15 kDa.

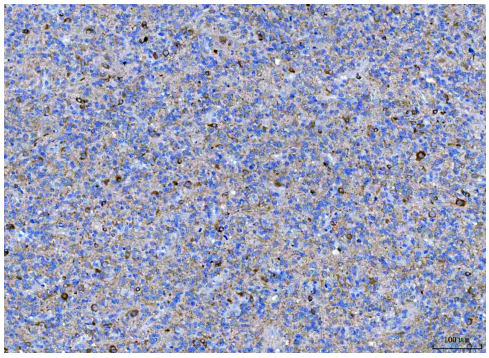

Figure 2. IHC analysis of LC3B/MAP1LC3B using anti-LC3B/MAP1LC3B antibody (PA01524).
LC3B/MAP1LC3B was detected in a paraffin-embedded section of human glioma tissue. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1022) as the chromogen.