

LC3B-Specific Polyclonal ANTIBODY

Catalog Number: 18725-1-AP

70 Publications

Basic Information

Catalog Number: 18725-1-AP	GenBank Accession Number: NM_022818	Recommended Dilutions: WB 1:300-1:600 IHC 1:50-1:500 IF 1:50-1:500
Size: 45 µg/150 µl	GeneID (NCBI): 81631	
Source: Rabbit	Full Name: microtubule-associated protein 1 light chain 3 beta	
Isotype: IgG	Calculated MW: 15 kDa	
Purification Method: Antigen affinity purification	Observed MW: 15kDa, 18 kDa	
Immunogen Catalog Number:		

Applications

Tested Applications:
IF, IHC, WB, ELISA

Cited Applications:
IF, IHC, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat

Note: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : A549 cells; mouse brain tissue, MCF-7 cells, UV treated HEK-293, human brain tissue, HepG2 cells, TN treated Hela

IHC : mouse brain tissue;

IF : Chloroquine treated HepG2 cells; Starvation treated HEK-293 cells, Starvation treated HepG2 cells

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 lysosomal machinery. 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 APG7/LATG7, 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.

Notable Publications

Author	Pubmed ID	Journal	Application
Tianyu Han	30231667	Autophagy	WB
Yanlin Song	28880428	Cell Biol Int	WB
Qiang Niu	29100748	Environ Pollut	WB,IHC,IF

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

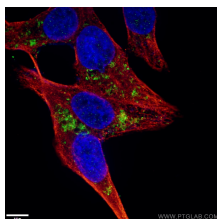
E: proteintech@ptglab.com
W: ptglab.com

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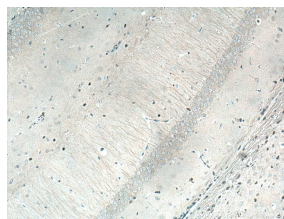
Selected Validation Data



A549 cells were subjected to SDS PAGE followed by western blot with 18725-1-AP (LC3B-Specific antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours



Immunofluorescent analysis of (-20°C Ethanol) fixed Chloroquine treated HepG2 cells using 18725-1-AP (LC3B-Specific antibody; green) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). Cells was co-stained with alpha-tubulin (66031-1-Ig; red).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 18725-1-AP (LC3B-Specific antibody) at dilution of 1:200 (under 10x lens) heat mediated antigen retrieved with Tris-EDTA buffer(pH9).