

For Research Use Only

# LC3B-Specific Polyclonal antibody

Catalog Number: 18725-1-AP **280 Publications**



## Basic Information

<b>Catalog Number:</b> 18725-1-AP	<b>GenBank Accession Number:</b> NM_022818	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 500 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 81631	<b>Recommended Dilutions:</b> WB 1:300-1:1000 IHC 1:50-1:500 IF 1:50-1:500
<b>Source:</b> Rabbit	<b>ENSEMBL Gene ID:</b> ENSG00000140941	
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> Q9GZQ8	
	<b>Full Name:</b> microtubule-associated protein 1 light chain 3 beta	
	<b>Calculated MW:</b> 15 kDa	
	<b>Observed MW:</b> 15 kDa, 18 kDa	

## Applications

<b>Tested Applications:</b> WB, IF, FC, IHC, ELISA	<b>Positive Controls:</b> WB : human brain tissue, MCF-7 cells, TN treated HeLa, A549 cells, UV treated HEK-293, mouse brain tissue, HepG2 cells IHC : mouse brain tissue, rat brain tissue IF : Chloroquine treated HeLa cells, Chloroquine treated HepG2 cells
<b>Cited Applications:</b> WB, IP, IF, IHC	
<b>Species Specificity:</b> human, mouse, rat	
<b>Cited Species:</b> human, rat, mouse, pig, bovine	

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

## 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 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.

## Notable Publications

Author	Pubmed ID	Journal	Application
Karuna Irungbam	31570772	Lab Invest	IHC,IF
Yushan Mao	36175702	Med Oncol	IF
Huandi Liu	36163615	J Med Virol	WB

## Storage

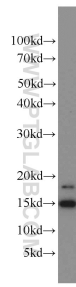
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

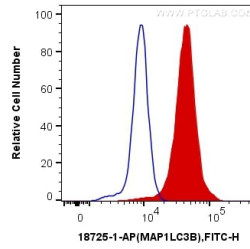
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

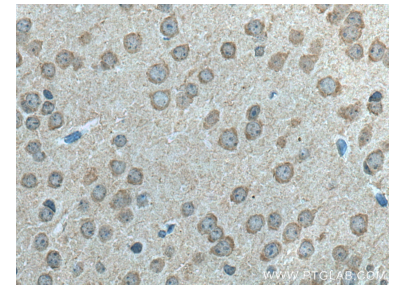
## Selected Validation Data



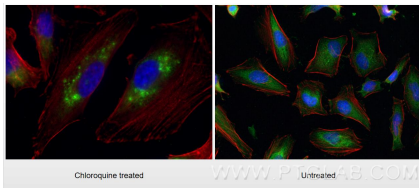
human brain tissue were subjected to SDS PAGE followed by western blot with 18725-1-AP (LC3B-Specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.4 ug Anti-Human LC3B-Specific (18725-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 18725-1-AP (LC3B-Specific antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed Chloroquine treated HeLa cells using LC3B-Specific antibody (18725-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).