

For Research Use Only

CoraLite® Plus 488-conjugated LC3B-Specific Polyclonal antibody

Catalog Number:CL488-18725



Basic Information

Catalog Number: CL488-18725	GenBank Accession Number: NM_022818	Purification Method: Antigen affinity purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 81631	Recommended Dilutions: IF/ICC 1:50-1:500
Source: Rabbit	ENSEMBL Gene ID: ENSG00000140941	Excitation/Emission maxima wavelengths: 493 nm / 522 nm
Isotype: IgG	UNIPROT ID: Q9GZQ8	
	Full Name: microtubule-associated protein 1 light chain 3 beta	
	Calculated MW: 15 kDa	
	Observed MW: 15 kDa, 18 kDa	

Applications

Tested Applications: IF/ICC, FC (Intra)	Positive Controls: IF/ICC : Chloroquine treated HepG2 cells,
Species Specificity: human, mouse, rat	

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.

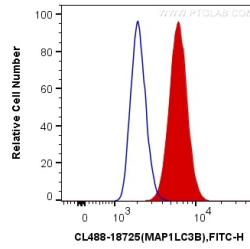
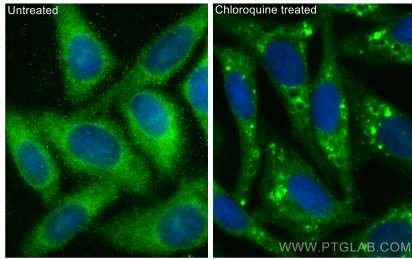
Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, 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)
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Immunofluorescent analysis of (-20°C Ethanol) fixed Chloroquine treated HepG2 cells using CoraLite® Plus 488 LC3B-Specific antibody (CL488-18725) at dilution of 1:200.

1X10⁶ HeLa cells were intracellularly stained with 0.4 ug CoraLite® Plus 488 Anti-Human LC3B-Specific (CL488-18725) (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).