

CoraLite®594-conjugated LC3B-Specific Polyclonal antibody

Catalog Number: CL594-18725

Basic Information

Catalog Number:

CL594-18725

Concentration:

1000 µg/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_022818

GeneID (NCBI):

81631

ENSEMBL Gene ID:

ENSG00000140941

UNIPROT ID:

Q9GZQ8

Full Name:

microtubule-associated protein 1
light chain 3 beta

Calculated MW:

15 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

IF-P: 1:50-1:500

FC (Intra): 0.20 µg per 10⁶ cells in a
100 µl suspensionExcitation/Emission maxima
wavelengths:

588 nm / 604 nm

Applications

Tested Applications:

IF-P, FC (Intra)

Species Specificity:

human, mouse, rat

Positive Controls:

IF-P: mouse brain tissue,

FC (Intra): HeLa 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 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:

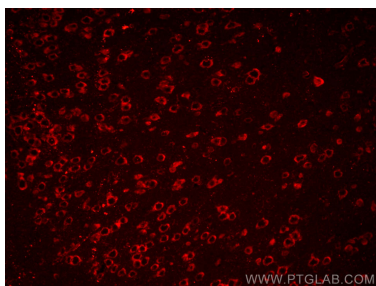
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

Storage Buffer:

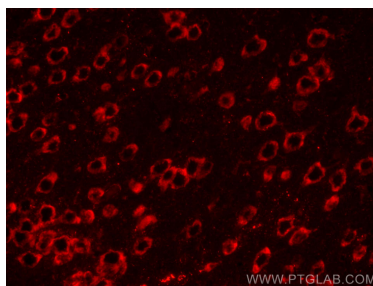
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3

Aliquoting is unnecessary for -20°C storage

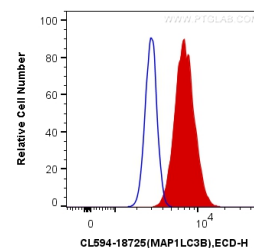
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using CoraLite® 594 LC3B-Specific antibody (CL594-18725) at dilution of 1:100.



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1X10⁶ HeLa cells were intracellularly stained with 0.2 ug CoraLite® 594 Anti-Human LC3B-Specific (CL594-18725) (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).