For Research Use Only

LC3B-Specific Polyclonal antibody, PBS Only

Catalog Number:18725-1-PBS

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
18725-1-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

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

Observed MW:
15 kDa, 18 kDa

Purification Method:
Antigen affinity purification

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), Indirect ELISA

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 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.

Storage

Storage:
Store at -80°C.
Storage Buffer:
PBS only, pH7.3

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
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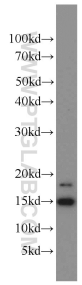
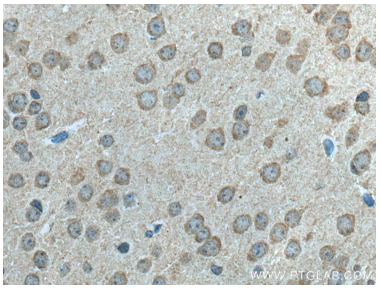
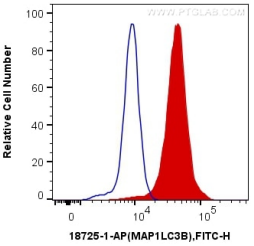
Selected Validation Data



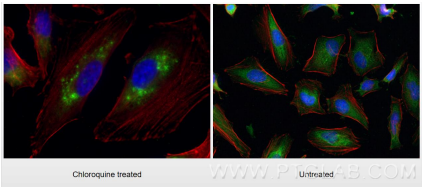
human brain tissue were subjected to SDS PAGE followed by western blot with 18725-1-AP (LC3B-Specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 18725-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 18725-1-PBS in a different storage buffer formulation.



1X10^6 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). This data was developed using the same antibody clone with 18725-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 18725-1-PBS in a different storage buffer formulation.