

For Research Use Only

LC3 Polyclonal antibody

Catalog Number: 12135-1-AP

72 Publications



Basic Information

Catalog Number:

12135-1-AP

Size:

150ul, Concentration: 200 µg/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG2781

GenBank Accession Number:

BC015810

GeneID (NCBI):

84557

UNIPROT ID:

Q9H492

Full Name:

microtubule-associated protein 1 light chain 3 alpha

Calculated MW:

121 aa, 14 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:500-1:2000

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

Applications

Tested Applications:

WB, IF, IHC, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat, zebrafish

Cited Species:

human, mouse, rat, pig, chicken, turtle

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

Positive Controls:

WB: Chloroquine treated HEK-293 cells, Chloroquine treated HeLa cells

IHC: human breast cancer tissue, human liver cancer tissue

IF/ICC: Starvation treated HEK-293 cells,

Background Information

LC3, also known as microtubule-associated protein 1 light chain 3 (MAP1LC3), is a mammalian homolog of the yeast Atg8p (autophagy-related 8 protein) that is involved in autophagy process. Three isoforms of LC3 exist as LC3A, LC3B, and LC3C. LC3 is first synthesized as pro-LC3, and undergoes C-terminal cleavage to yield a cytosolic precursor known as LC3-I. During autophagy LC3-I is subsequently conjugated to PE lipid as lipidated form: LC3-II. The lipidated form migrates faster on SDS-PAGE gel. The increased level of LC3-II has been widely used as autophagy marker. This antibody recognizes both LC3-I (18-20 kDa) and LC3-II (14-16 kDa).

Notable Publications

Author	Pubmed ID	Journal	Application
Chengni Jin	32910998	Food Chem Toxicol	WB
Xiafang Wu	31781319	Oxid Med Cell Longev	WB
Linjiang Zhang	33075563	Cell Mol Gastroenterol Hepatol	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

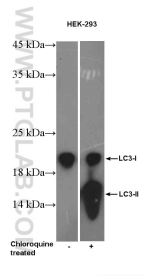
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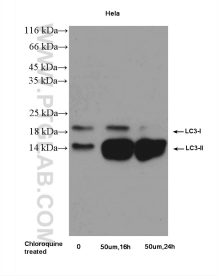
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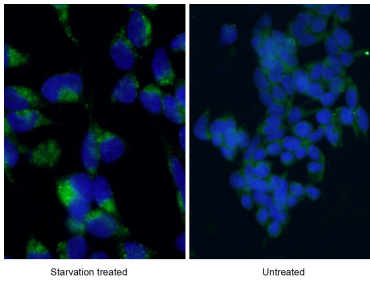
Selected Validation Data



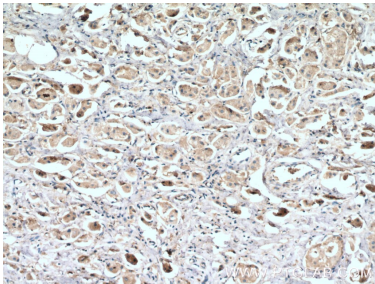
Chloroquine treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 12135-1-AP (LC3 Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Chloroquine treated HeLa cells were subjected to SDS PAGE followed by western blot with 12135-1-AP (LC3 Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of starvated HEK-293 cells using 12135-1-AP (LC3 Antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated Goat Anti-Rabbit IgG(H+L). Cells were fixed with ethanol at -20 °C. 20 mM chloroquine was used to block the autophagy flux.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 12135-1-AP (LC3 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).