



Rabbit Anti-LC3 antibody

SL8878R

Product Name:	LC3
Chinese Name:	自噬微管相关蛋白轻链3抗体
Alias:	Autophagy related protein LC3 A; Autophagy related protein LC3 B; Autophagy related ubiquitin like modifier LC3 A; Autophagy related ubiquitin like modifier LC3 B; MAP1 light chain 3 like protein 1; MAP1 light chain 3 like protein 2; MAP1A/1B light chain 3 A; MAP1A/1B light chain 3 B; MAP1A/1BLC3; MAP1A/MAP1B LC3 A; MAP1A/MAP1B LC3 B; MAP1ALC3; MAP1BLC3; MAP1LC3A; MAP1LC3B; Microtubule associated protein 1 light chain 3 alpha; Microtubule associated protein 1 light chain 3 beta; Microtubule associated proteins 1A/1B light chain 3; Microtubule associated proteins 1A/1B light chain 3A; Microtubule associated proteins 1A/1B light chain 3B; MLP3A HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Sheep,Goat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	14/16kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human LC3:31-121/121
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:[PubMed](#)

A major contributor to cellular homeostasis is the ability of the cell to strike a balance between the formation and degradation/removal of its cellular components. This process of internal cellular turn-over is called autophagy (self-eating), and is facilitated by a pathway of around 16 interacting proteins in the human. LC3, a ubiquitin-like modifier protein, is the human homolog of yeast Apg8 and is involved in the formation of autophagosomal vacuoles, called autophagosomes. LC3 is expressed as 3 splice variants (LC3A, LC3B and LC3C), which exhibit different tissue distributions and are processed into cytosolic and autophagosomal membrane-bound forms, termed LC3-I and LC3-II, respectively. A disruption to the autophagic process is now associated with the progression of several cancers, neurodegenerative disorders and cardiac pathologies, where LC3 is widely employed as a marker for autophagy.

Function:

Probably involved in formation of autophagosomal vacuoles (autophagosomes).

Subunit:

3 different light chains, LC1, LC2 and LC3, can associate with MAP1A and MAP1B proteins. Interacts with SQSTM1. Interacts with TP53INP1 and TP53INP2.

Subcellular Location:

Cytoplasmic. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Note: LC3B binds to the autophagic membranes.

Tissue Specificity:

Most abundant in heart, brain, liver, skeletal muscle and testis but absent in thymus and peripheral blood leukocytes.

Post-translational modifications:

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.

Similarity:

Belongs to the MAP1 LC3 family.

SWISS:

Q9H492

Gene ID:

84557

Database links:

[Entrez Gene: 84557](#)Human

Product Detail:

[Entrez Gene: 66734](#)Mouse

[Entrez Gene: 362245](#)Rat

[Olim: 601242](#)Human

[SwissProt: Q9H492](#)Human

[SwissProt: Q91VR7](#)Mouse

[SwissProt: Q6XVN8](#)Rat

[Unigene: 632273](#)Human

[Unigene: 196239](#)Mouse

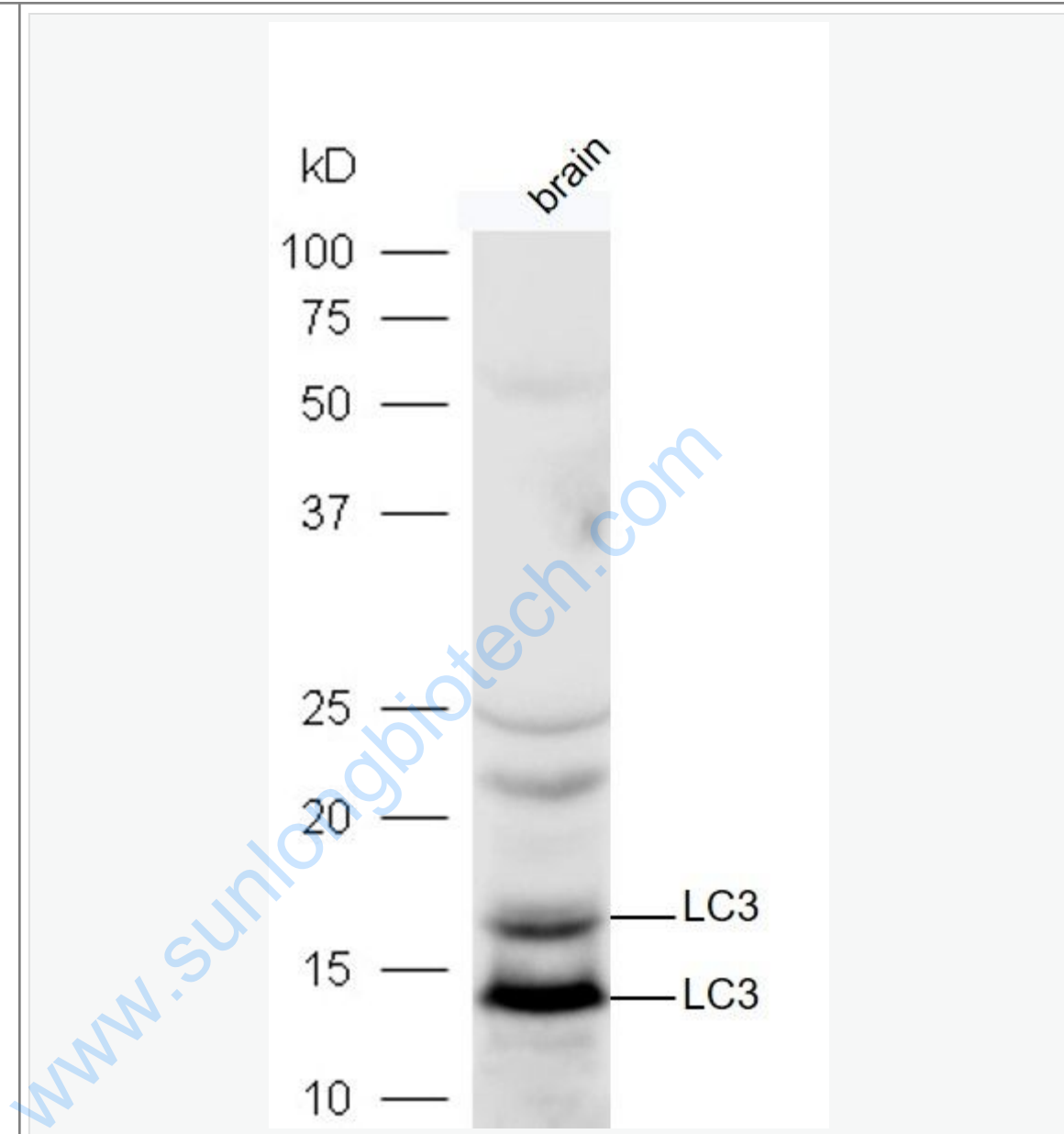
[Unigene: 3135](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Picture:

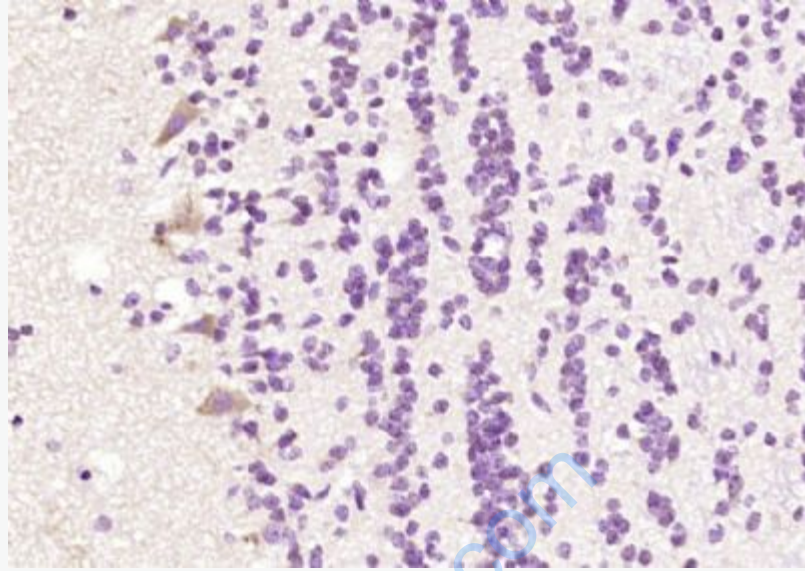


Protein: mouse brain lysates at 40ug;

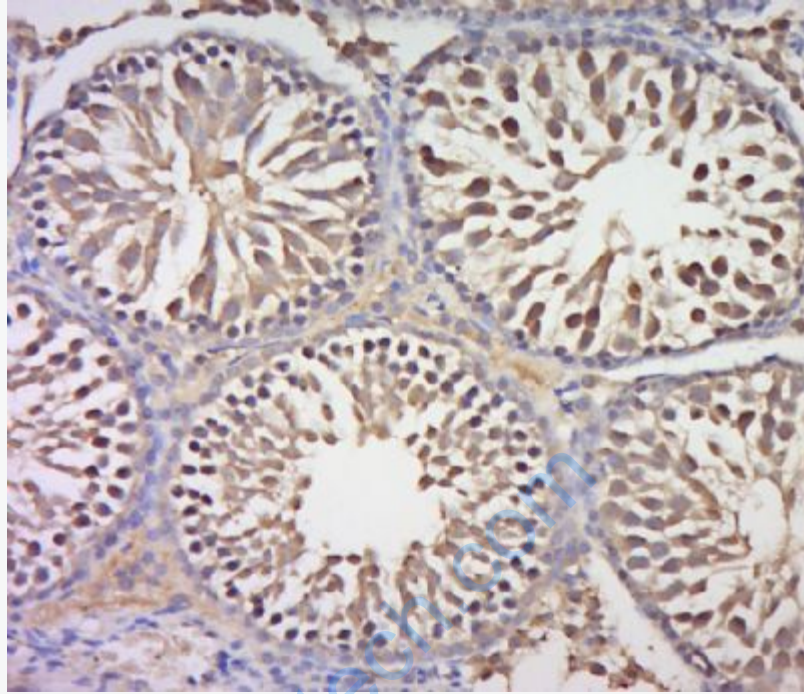
Primary: rabbit Anti-LC3 (SL8878R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL8878R) at 1: 5000;

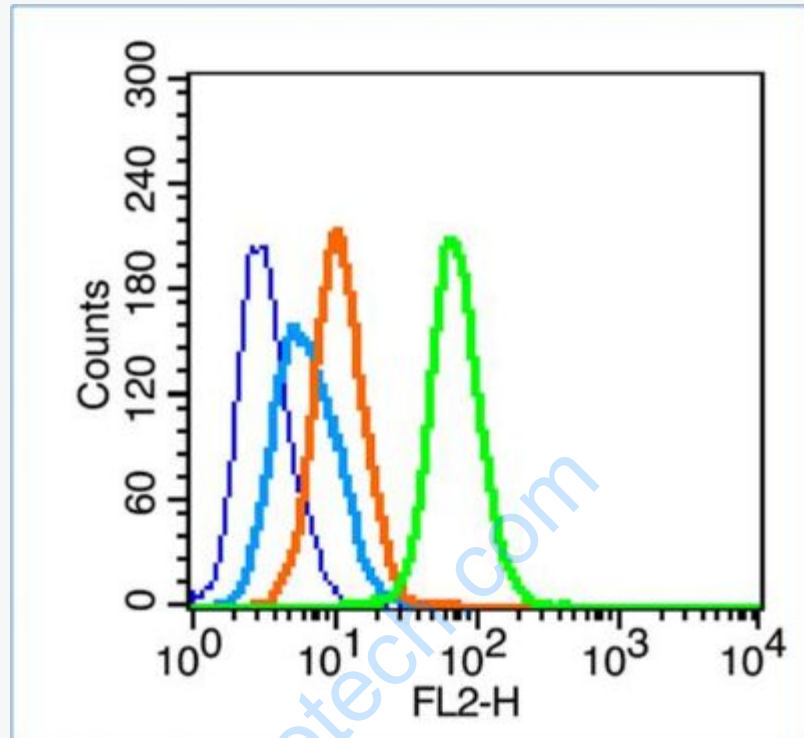
Predicted band size:14 kD Observed band size:14,16 kD



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LC3) Polyclonal Antibody, Unconjugated (SL8878R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat testis tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LC3) Polyclonal Antibody, Unconjugated (SL8878R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control (blue line): HeLa (fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min at -20°C).

Primary Antibody (green line): Rabbit Anti-LC3 antibody (SL8878R), Dilution: 1 μg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE, Dilution: 1 μg /test.