

Product datasheet

Anti-LC3B antibody ab48394

★★★★☆ 29 Abreviews 154 References 6 Images

Overview

Product name	Anti-LC3B antibody
Description	Rabbit polyclonal to LC3B
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IP, IHC-P, WB, IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Dog, Human, Zebrafish, Syrian hamster, Bacteria Predicted to work with: Cow
Immunogen	Synthetic peptide corresponding to Human LC3B (N terminal). A synthetic peptide made to an N-terminal portion of the human LC3 protein sequence (between residues 1-100). Database link: Q9GZQ8
Positive control	Human brain lysate, mouse brain lysate, ES, HeLa, HEK293 and MCF7 cells, human lymphocytes and embryoid bodi.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab48394** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

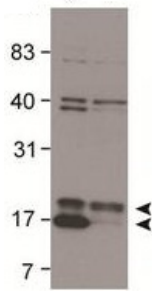
Application	Abreviews	Notes
ICC/IF	★★★★★	Use a concentration of 1 µg/ml.

Application	Abreviews	Notes
IP	★★★★☆	Use at an assay dependent concentration. 20 ug per 500 ug of protein.
IHC-P	★★★★☆	1/200 - 1/400.
WB	★★★★★	Use a concentration of 0.5 - 2 µg/ml. Detects a band of approximately 17 kDa (predicted molecular weight: 15 kDa). Detects bands of approximately 17 kDa (LC3-II) and 19 kDa (LC3-I) (predicted molecular weight: 15 kDa).
IHC-Fr	★★★★☆	Use at an assay dependent concentration.

Target

Function	Probably involved in formation of autophagosomal vacuoles (autophagosomes).
Tissue specificity	Most abundant in heart, brain, skeletal muscle and testis. Little expression observed in liver.
Sequence similarities	Belongs to the MAP1 LC3 family.
Post-translational modifications	The precursor molecule is cleaved by APG4B/ATG4B to form LC3-I. This is activated by APG7L/ATG7, transferred to ATG3 and conjugated to phospholipid to form LC3-II.
Cellular localization	Cytoplasm > cytoskeleton. Endomembrane system. Cytoplasmic vesicle > autophagosome membrane. LC3-II binds to the autophagic membranes.

Images



Western blot - Anti-LC3B antibody (ab48394)

All lanes : Anti-LC3B antibody (ab48394) at 2 µg/ml

Lane 1 : ATG5+ control lysate (see reference)

Lane 2 : ATG5- control lysate (see reference)

Lysates/proteins at 40 µg per lane.

Secondary

All lanes : Goat anti-rabbit HRP conjugated

Developed using the ECL technique.

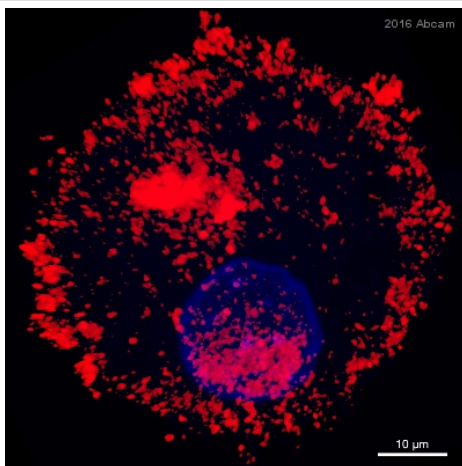
Predicted band size: 15 kDa

Observed band size: 17,19 kDa

Additional bands at: 38 kDa, 40 kDa, 80 kDa. We are unsure as to the identity of these extra bands.

Observed band at 18 kDa: LC3-I.

Observed band at 17 kDa: LC3-II.



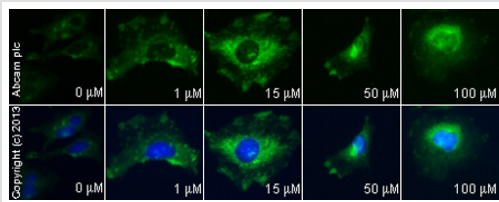
Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab48394)

This image is courtesy of an Abreview by Armen Petrosyan.

ab48394 staining LC3B in a Rat hepatocyte by ICC/IF

(Immunocytochemistry/immunofluorescence).

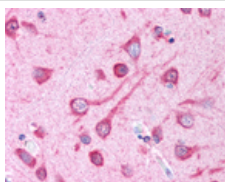
Cells were fixed with formaldehyde, permeabilized with 0.2% Triton X-100 in PBS and blocked with 1% Donkey serum in 0.1% PBST for 60 minutes at 21°C. Samples were incubated with primary antibody (1/50 in PBS + 1% BSA) for 3 hours at 22°C. An Alexa Fluor® 394-conjugated Donkey anti-rabbit IgG polyclonal was used as the secondary antibody at a dilution of 1/200.



Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab48394)

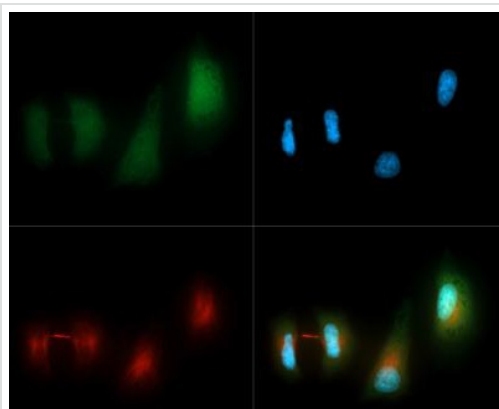
ab48394 staining LC3B (LC3-II) in HeLa cells treated with calmidazolium chloride (ab120658), by ICC/IF. Increase of LC3B (LC3-II) expression correlates with increased concentration of calmidazolium chloride, as described in literature.

The cells were incubated at 37°C for 6h in media containing different concentrations of ab120658 (calmidazolium chloride) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab48394 (1 μg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 anti-rabbit polyclonal antibody (ab96899) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.



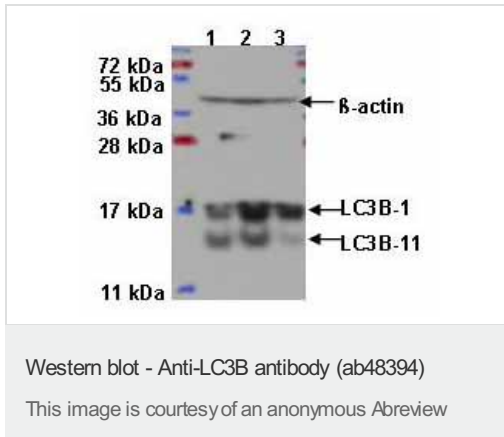
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LC3B antibody (ab48394)

Immunohistochemistry analysis of (formalin-fixed,paraffin-embedded sections) analysis of human brain,cerebral cortex,neurons with cell processes LC3B with ab48394



Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab48394)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells with Dylight 488 (green).Nuclei and alpha -tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



All lanes : Anti-LC3B antibody (ab48394) at 1/2000 dilution

Lane 1 : Rat whole tissue lysate - Normal liver

Lane 2 : Rat whole tissue lysate - liver treated with AEE788 at 50 mg/kg 3 times a week for 1 week

Lane 3 : Rat whole tissue lysate - liver treated with RAD at 2.5 mg/kg daily for 1 week

Lysates/proteins at 30 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab6721) at 1/5000 dilution

Developed using the ECL technique.

Performed under non-reducing conditions.

Predicted band size: 15 kDa

Observed band size: 17 kDa

Exposure time: 1 minute

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors