

Product datasheet

Anti-LC3B antibody ab51520

★★★★☆ [18 Abreviews](#) [399 References](#) [9 Images](#)

Overview

Product name	Anti-LC3B antibody
Description	Rabbit polyclonal to LC3B
Host species	Rabbit
Specificity	ab51520 is specific for the B isoform of LC3.
Tested applications	Suitable for: IHC-Fr, Flow Cyt (Intra), WB, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human LC3B (N terminal). Synthetic peptide made to the N terminal region of human LC3, isoform B protein. Database link: Q9GZQ8
Positive control	ICC/IF: HeLa, U373-MGc cells. IHC-P: U87-MG cells. Flow Cyt (Intra): NTERA-2 cells. IHC-P-Fr: U373-MG cells.
General notes	<p>ab51520 has been shown to work on human malignant brain tumors, breast cancer, leukemia samples, and murine cells.</p> <p>The product formulation changed to include 1% BSA on 17th May 2017. The following lot does not contain BSA and is still in stock GR320876. All future lots will contain 1% BSA.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Purity	Immunogen affinity purified

Primary antibody notes	ab51520 has been shown to work on human malignant brain tumors, breast cancer, leukemia samples, and murine cells.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab51520 in the following tested applications.

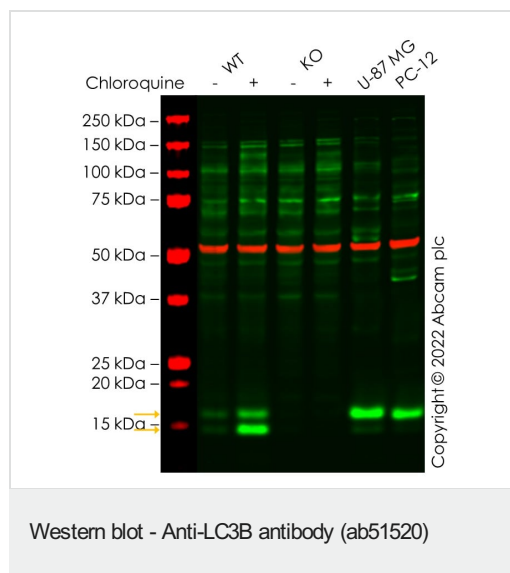
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★★ (2)	1/2000.
Flow Cyt (Intra)		1/200.
WB	★★★★★ (9)	1/3000. Predicted molecular weight: 15 kDa. Detects bands of ~16 kDa (LC3-II) and ~18 kDa (LC3-I).
ICC/IF	★★★★★ (3)	1/2000.

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



All lanes : Anti-LC3B antibody (ab51520) at 1/3000 dilution

Lane 1 : Wild-type HepG2 untreated control cell lysate

Lane 2 : Wild-type HepG2 Treated Chloroquine (50 uM, 16 h) cell lysate

Lane 3 : MAP1LC3B knockout HepG2 untreated control cell lysate

Lane 4 : MAP1LC3B knockout HepG2 Treated Chloroquine (50 uM, 16 h) cell lysate

Lane 5 : U-87 MG cell lysate

Lane 6 : PC-12 cell lysate

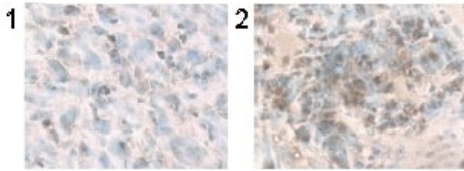
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 15 kDa

Observed band size: 14,16 kDa

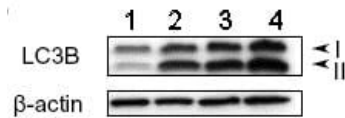
False colour image of Western blot: Anti-LC3B antibody staining at 1/3000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab51520 was shown to bind specifically to LC3B. A band was observed at 16/14 kDa (yellow arrows) in treated wild-type HepG2 cell lysates with no signal observed at this size in MAP1LC3B knockout cell line [ab277828](#) (knockout cell lysate [ab283796](#)). To generate this image, wild-type and MAP1LC3B knockout HepG2 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Immunohistochemistry (Frozen sections) - Anti-LC3B antibody (ab51520)

Ab51520 at 1/2000 dilution staining treated U87-MG cultured and subcutaneous tumors

- 1) Control
- 2) Temozolomide



Western blot - Anti-LC3B antibody (ab51520)

All lanes : Anti-LC3B antibody (ab51520) at 1/3000 dilution

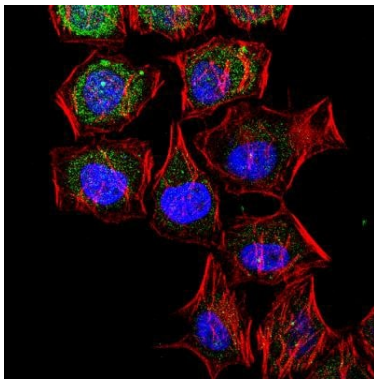
Lane 1 : treated U87-MG (human glioblastoma astrocytoma) lysates with Arsenic Trioxide at 0 μ M

Lane 2 : treated U87-MG (human glioblastoma astrocytoma) lysates with Arsenic Trioxide at 2 μ M

Lane 3 : treated U87-MG (human glioblastoma astrocytoma) lysates with Arsenic Trioxide at 4 μ M

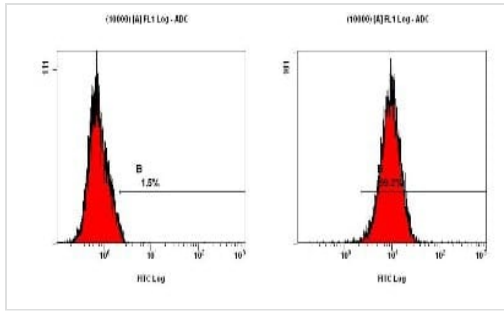
Lane 4 : treated U87-MG (human glioblastoma astrocytoma) lysates with Arsenic Trioxide at 8 μ M

Predicted band size: 15 kDa



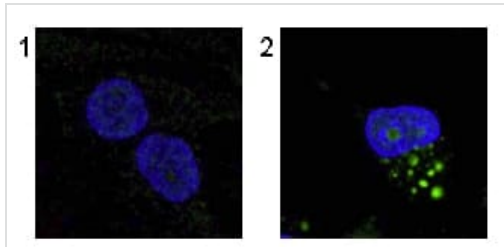
Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab51520)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling LC3B with ab51520. An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



Flow Cytometry (Intracellular) - Anti-LC3B antibody (ab51520)

Flow cytometry (Intracellular) analysis of NTERA-2 cells with ab51520 at 1/200 using Dylight-488 conjugated goat anti-rabbit IgG secondary.

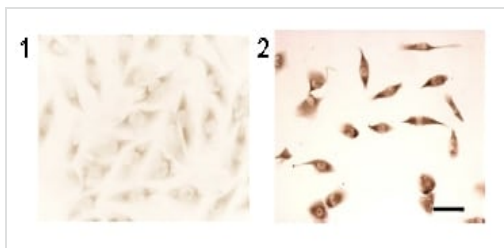


Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab51520)

Ab51520 at 1/2000 dilution staining treated U373-MG cells;

- 1) Control
- 2) C₂-ceramide.

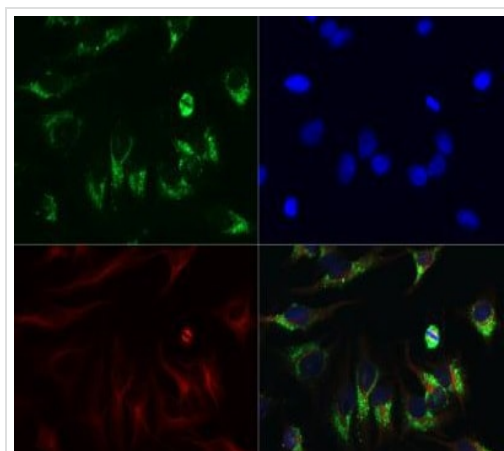
The nuclei were stained with DAPI.



Immunohistochemistry (Frozen sections) - Anti-LC3B antibody (ab51520)

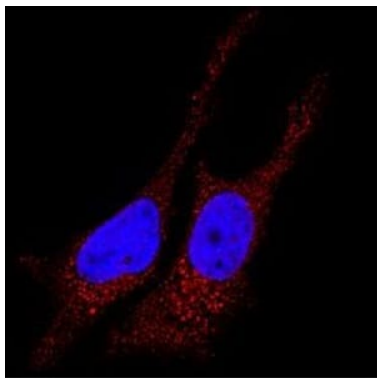
Ab51520 at 1/2000 dilution staining treated U373-MG (human glioblastoma) cells

- 1) Control
- 2) Temozolomide



Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab51520)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells using anti-LC3B antibody (red) at 0.1 ug/ml. Nuclei were counterstained with DAPI (blue). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Immunocytochemistry/Immunofluorescence analysis of HeLa cells using anti-LC3B antibody(red). Nuclei were counterstained with DAPI (blue).

Immunocytochemistry/ Immunofluorescence - Anti-LC3B antibody (ab51520)

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