**Product datasheet**

**Anti-LC3B antibody ab51520**

- **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 - Wholemount, Flow Cyt, IHC-Fr, WB, ICC/IF
- **Species reactivity**: Reacts with: Mouse, 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**: WB: Treated U87-MG lysates. ICC/IF: Treated U87-MG cells. Human malignant brain tumors, breast cancer, leukemia samples and murine cells
- **General notes**: ab51520 has been shown to work on human malignant brain tumors, breast cancer, leukemia samples, and murine cells.
  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.

**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
  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**
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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC - Wholemount</td>
<td>⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>⭐⭐⭐⭐</td>
<td>1/200.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/2000.</td>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/3000. Predicted molecular weight: 15 kDa. Detects bands of ~16 kDa (LC3-II) and ~18 kDa (LC3-I).</td>
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</tbody>
</table>

**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 (ab51520)](image)

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

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

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

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

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

**Predicted band size**: 15 kDa
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).

Ab51520 at 1/2000 dilution staining treated U87-MG cultured and subcutaneous tumors
1) Control
2) Temozolomide

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

Ab51520 at 1/2000 dilution staining treated U373-MG cells;
1) Control
2) C2-ceramide.
The nuclei were stained with DAPI.
Ab51520 at 1/2000 dilution staining treated U373-MG (human glioblastoma) cells
1) Control
2) Temozolomide

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).

Ab51520 at 1/2000 dilution staining glioblastoma multiform tissue
1) normal brain
2) glioblastoma multiform tissue

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