# Product datasheet

**Anti-Iba1 antibody [EPR16589] ab178847**

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**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Iba1 antibody [EPR16589]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EPR16589] to Iba1</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td><strong>Suitable for:</strong> IHC-P, WB, IP, ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td><strong>Reacts with:</strong> Mouse, Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human Iba1 aa 1-100. The exact sequence is proprietary. Database link: P55008</td>
</tr>
</tbody>
</table>

**Positive control**

- WB: Human spleen lysate; THP-1, MOLT-4 and U937 whole cell lysates; Mouse and rat spleen and testis lysates. IHC-P: Human cerebrum, mouse endometrium and rat cerebrum tissues. ICC/IF: U937 and THP-1 cells. IP: Mouse spleen whole cell lysate.

**General notes**

- Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).
- This product is a recombinant rabbit monoclonal antibody.

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**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage buffer</td>
<td>Preservative: 0.01% Sodium azide. Constituents: 0.05% BSA, 40% Glycerol, 59% PBS</td>
</tr>
<tr>
<td>Purity</td>
<td>Protein A purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Clone number</td>
<td>EPR16589</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
</tr>
</tbody>
</table>

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**Applications**

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**Function**


**Tissue specificity**

Detected in T-lymphocytes and peripheral blood mononuclear cells.

**Sequence similarities**

Contains 2 EF-hand domains.

**Post-translational modifications**

Phosphorylated on serine residues.

**Cellular localization**

Cytoplasm > cytoskeleton. Cell projection > ruffle membrane. Associated with the actin cytoskeleton at membrane ruffles and at sites of phagocytosis.

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Our **Abpromise guarantee** covers the use of ab178847 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-P</td>
<td>★★★★★</td>
<td>1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★★☆</td>
<td>1/1000. Detects a band of approximately 17 kDa (predicted molecular weight: 17 kDa).</td>
</tr>
<tr>
<td>IP</td>
<td>1/40.</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>★★★★★☆</td>
<td>1/100.</td>
</tr>
</tbody>
</table>

**Target**

**Function**


**Tissue specificity**

Detected in T-lymphocytes and peripheral blood mononuclear cells.

**Sequence similarities**

Contains 2 EF-hand domains.

**Post-translational modifications**

Phosphorylated on serine residues.

**Cellular localization**

Cytoplasm > cytoskeleton. Cell projection > ruffle membrane. Associated with the actin cytoskeleton at membrane ruffles and at sites of phagocytosis.

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**Images**

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Iba1 with ab178847 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on microglia of the normal Human cerebrum is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.
**Western blot - Anti-Iba1 antibody [EPR16589]**

(ab178847)

**All lanes**: Anti-Iba1 antibody [EPR16589] (ab178847) at 1/200 dilution

**Lane 1**: Mouse hippocampus tissue lysates

**Lane 2**: Mouse brain tissue lysates

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size**: 17 kDa

**Observed band size**: 17 kDa

**Exposure time**: 3 minutes

Blocking and diluting buffer: 5% NFDM/TBST.
All lanes: Anti-Iba1 antibody [EPR16589] (ab178847) at 1/2000 dilution

Lane 1: Human spleen lysate
Lane 2: THP-1 (Human monocytic leukemia cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 17 kDa
Observed band size: 17 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.
Western blot - Anti-Iba1 antibody [EPR16589] (ab178847)

**All lanes**: Anti-Iba1 antibody [EPR16589] (ab178847) at 1/1000 dilution

**Lane 1**: MOLT-4 (Human lymphoblastic leukemia cell line) whole cell lysate

**Lane 2**: U937 (Human histiocytic lymphoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

**Predicted band size**: 17 kDa

**Observed band size**: 17 kDa

**Exposure time**: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.
Western blot - Anti-Iba1 antibody [EPR16589]
(ab178847)

**All lanes**: Anti-Iba1 antibody [EPR16589]
(ab178847) at 1/1000 dilution

**Lane 1**: Mouse spleen lysate
**Lane 2**: Rat spleen lysate
**Lane 3**: Mouse testis lysate
**Lane 4**: Rat testis lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP)
(ab97051) at 1/10000 dilution

**Predicted band size**: 17 kDa

**Observed band size**: 17 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1 and 2: 1 minute; Lane 3 and 4: 3 minutes.

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Iba1 antibody
[EPR16589] (ab178847)

Immunohistochemical analysis of paraffin-embedded Mouse endometrium tissue labeling Iba1 with ab178847 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on macrophages of the mouse endometrium.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Iba1 with ab178847 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on microglia of the rat cerebrum is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized U937 (Human histiocytic lymphoma cell line) cells labeling Iba1 with ab178847 at 1/100 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).

Confocal image showing cytoplasmic staining on U937 cell line.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin - Loading Control (ab7291) at 1/1000 dilution and Goat Anti-Mouse IgG (AlexaFluor®594) preadsorbed (ab150120) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab178847 at 1/100 dilution followed by ab150120 at 1/1000 dilution.

-ve control 2: ab7291 at 1/1000 dilution followed by ab150077 at 1/1000 dilution.
Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized THP-1 (Human monocytic leukemia cell line) cells labeling Iba1 with ab178847 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).

Confocal image showing cytoplasmic staining on THP-1 cell line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (Alexa Fluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab178847 at 1/100 dilution followed by ab150120 at 1/1000 dilution.

-ve control 2: ab7291 at 1/1000 dilution followed by ab150077 at 1/1000 dilution.
**Immunoprecipitation - Anti-Iba1 antibody [EPR16589] (ab178847)**

Iba1 was immunoprecipitated from 1mg of Mouse spleen whole cell lysate with ab178847 at 1/40 dilution.

Western blot was performed from the immunoprecipitate using ab178847 at 1/1000 dilution.

VeriBlot for IP secondary antibody (HRP) (ab131366), was used as secondary antibody at 1/10000 dilution.

Lane 1: Mouse spleen whole cell lysate 10µg (Input).

Lane 2: ab178847 IP in Mouse spleen whole cell lysate.

Lane 3: Rabbit IgG,monoclonal-Isotype Control (ab172730) instead of ab178847 in Mouse spleen whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 5 seconds.

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