**Product name**
Anti-Myeloperoxidase antibody [EPR17996] ab188211

**Description**
Rabbit monoclonal [EPR17996] to Myeloperoxidase

**Host species**
Rabbit

**Specificity**
This antibody is specific to Myeloperoxidase light chain.

**Tested applications**
Suitable for: WB, IHC-P, Flow Cyt

**Species reactivity**
Reacts with: Mouse, Rat, Human

**Immunogen**
Recombinant fragment within Mouse Myeloperoxidase aa 100-300. The exact sequence is proprietary.
Database link: P11247

**Positive control**
WB: Mouse and rat spleen lysates. IHC-P: Human, mouse and rat spleen tissues. Flow Cyt: Mouse PBMC.

**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.

## Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.</td>
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<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.01% Sodium azide Constituents: PBS, 0.05% BSA, 40% Glycerol</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>EPR17996</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
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</tbody>
</table>
Function
Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity.

Involvement in disease
Defects in MPO are the cause of myeloperoxidase deficiency (MPD) [MIM:254600]. MPD is an autosomal recessive defect that results in disseminated candidiasis.

Sequence similarities
Belongs to the peroxidase family. XPO subfamily.

Cellular localization
Lysosome.

Applications

Our Abpromise guarantee covers the use of ab188211 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>
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</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>1/1000. Detects a band of approximately 89, 74, 13 kDa (predicted molecular weight: 83 kDa).</td>
</tr>
<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>Flow Cyt</td>
<td></td>
<td>1/500.</td>
</tr>
</tbody>
</table>

Target

Function
Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity.

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Images

Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling Myeloperoxidase with ab188211 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on neutrophils of human spleen [PMID: 19566938].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.
Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling Myeloperoxidase with ab188211 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on neutrophils of mouse spleen [PMID: 19566938].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling Myeloperoxidase with ab188211 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on neutrophils of rat spleen [PMID: 19566938].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.
**Western blot - Anti-Myeloperoxidase antibody [EPR17996] (ab188211)**

**All lanes**: Anti-Myeloperoxidase antibody [EPR17996] (ab188211) at 1/1000 dilution

**Lane 1**: Mouse spleen lysate

**Lane 2**: NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size**: 83 kDa

**Observed band size**: 13, 74, 89 kDa

why is the actual band size different from the predicted?

**Exposure time**: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature. PMID: 2154223. 89 kDa (MPO), 74 kDa (intermediate form), 13 kDa (light chain)

**Negative control**: NIH/3T3  PMID: 9001423.

**Anti-Myeloperoxidase antibody [EPR17996] (ab188211) at 1/1000 dilution + Rat spleen lysate at 20 µg**

**Secondary**

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size**: 83 kDa

**Observed band size**: 13, 74 kDa why is the actual band size different from the predicted?

**Exposure time**: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been
described in the literature PMID: 2154223.

Flow cytometric analysis of 4% paraformaldehyde-fixed mouse PBMC labeling Myeloperoxidase with ab188211 at 1/500 dilution (Right) compared with a rabbit monoclonal IgG isotype control (ab172730; Left). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.

Mouse peripheral blood mononuclear cells stained intracellularly with ab188211 (Right) and isotype control (Left). Only monocytes and granulocytes (larger SSC population) result in positive signal while the lymphocyte population remains unchanged.

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

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