Human Myeloperoxidase/MPO Antibody
Monoclonal Mouse IgG<sub>2b</sub> Clone # 392105
Catalog Number: MAB3174

**DESCRIPTION**

- **Species Reactivity**: Human
- **Specificity**: Detects human Myeloperoxidase/MPO in Western blots. No cross-reactivity with recombinant human Eosinophil Peroxidase is observed.
- **Source**: Monoclonal Mouse IgG<sub>2b</sub> Clone # 392105
- **Purification**: Protein A or G purified from hybridoma culture supernatant
- **Immunogen**: E. coli-derived recombinant human Myeloperoxidase/MPO
  - Val279-Ser745
  - Accession # P05164

**Formulation**: Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

**APPLICATIONS**

- **Please Note**: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>西部 blot</th>
<th>Sample</th>
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<td>1 μg/mL</td>
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<tr>
<th>免疫细胞化学</th>
<th>Sample</th>
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<td>8-25 μg/mL</td>
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**DATA**

- **Western Blot**: Detection of Human Myeloperoxidase/MPO by Western Blot. Western blot shows isoforms of HL-60 human acute promyelocytic leukemia cell line and human neutrophil. PVDF membrane was probed with 1 μg/mL of Mouse Anti-Human Myeloperoxidase/MPO Monoclonal Antibody (Catalog # MAB3174) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HA007). A specific band was detected for Myeloperoxidase/MPO at approximately 65 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

- **免疫细胞化学**: Myeloperoxidase/MPO in MOLT-4 Human Cell Line. Myeloperoxidase/MPO was detected in immersion fixed MOLT-4 human acute lymphoblastic leukemia cell line using 8 μg/mL Mouse Anti-Human Myeloperoxidase/MPO Monoclonal Antibody (Catalog # MAB3174) overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

- **免疫组织化学**: Myeloperoxidase/MPO in Human Spleen. Myeloperoxidase/MPO was detected in immersion fixed paraffin-embedded sections of human spleen using 15 μg/mL Mouse Anti-Human Myeloperoxidase/MPO Monoclonal Antibody (Catalog # MAB3174) overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

**PREPARATION AND STORAGE**

- **Reconstitution**: Reconstitute at 0.5 mg/mL in sterile PBS.
- **Shipping**: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
- **Stability & Storage**: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
  - 12 months from date of receipt, -20 to -70 °C as supplied.
  - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
  - 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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Myeloperoxidase (MPO) is a heme protein that belongs to the XPO subfamily of the heme peroxidase superfamily. MPO is synthesized as a preproprotein that undergoes proteolytic processing to generate a disulfide-linked heterodimer of the N-terminal β-subunit (12 kDa) and C-terminal α-subunit (60 kDa). Active MPO is a tetramer of two β-subunits and two α-subunits that are also disulfide-linked through the two α-subunits. MPO is stored in granules and is an abundant protein in neutrophils and monocytes. MPO is released upon activation to catalyze the formation of powerful oxidants such as hypochlorous acid, which kills microbes. Unprocessed pro-MPO can also be released. Human and mouse MPO share 87% amino acid sequence identity.