

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse Myeloperoxidase/MPO in Western blots. Goat anti-human/mouse MPO does not cross-react with recombinant human Eosinophil Peroxidase (EPP0) in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse MPO Met16-Thr718 Accession # P11247
<b>Formulation</b>	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.

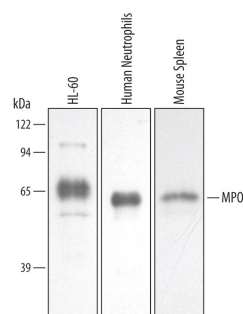
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	5 µg/mL	See Below

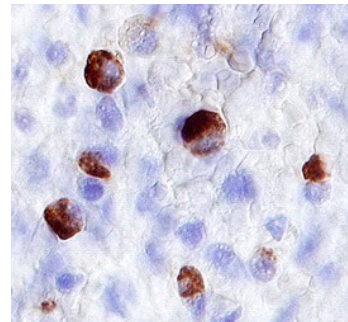
## DATA

### Western Blot



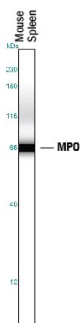
**Detection of Human/Mouse Myeloperoxidase/MPO by Western Blot.** Western blot shows lysates of HL-60 human acute promyelocytic leukemia cell line, human neutrophil cells, and mouse spleen tissue. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human/Mouse Myeloperoxidase/MPO Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3667) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Myeloperoxidase/MPO at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using *Immunoblot Buffer Group 2*.

### Immunohistochemistry



**Myeloperoxidase/MPO in Human Spleen.** Myeloperoxidase/MPO was detected in immersion fixed paraffin-embedded sections of human spleen using 3 µg/mL Goat Anti-Human/Mouse Myeloperoxidase/MPO Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3667) 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-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

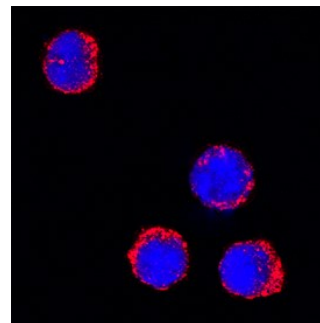
### Simple Western



**Detection of Mouse Myeloperoxidase/MPO by Simple Western™.** Simple Western lane view shows lysates of mouse spleen tissue, loaded at 0.2 mg/mL. A specific band was detected for Myeloperoxidase/MPO at approximately 67 kDa (as indicated) using 5 µg/mL of Goat Anti-Human/Mouse Myeloperoxidase/MPO Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3667) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



### Immunocytochemistry



**Myeloperoxidase/MPO in Mouse Splenocytes.** Myeloperoxidase/MPO was detected in immersion fixed mouse splenocytes using Goat Anti-Human/Mouse Myeloperoxidase/MPO Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3667) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>

## BACKGROUND

Myeloperoxidase (MPO) is a hemeprotein 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  $\beta$ -subunit (12 kDa) and C-terminal  $\alpha$  subunit (60 kDa). Active MPO is a tetramer of two  $\beta$ -subunits and two  $\alpha$ -subunits that are also disulfide-linked through the two  $\alpha$ -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. Mouse MPO shares 87% amino acid sequence identity with that of human MPO.