# Human Myeloperoxidase/MPO Antibody

Monoclonal Rat $IgG_{2A}$ Clone # 358621

Catalog Number: MAB31741

## DESCRIPTION

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| **Species Reactivity** | Human |
| **Specificity** | Detects human Myeloperoxidase/MPO in sandwich ELISAs. |
| **Source** | Monoclonal Rat $IgG_{2A}$ Clone # 358621 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived human Myeloperoxidase/MPO protein<br>Ala49-Ser745<br>Accession # P05164 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or 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.*

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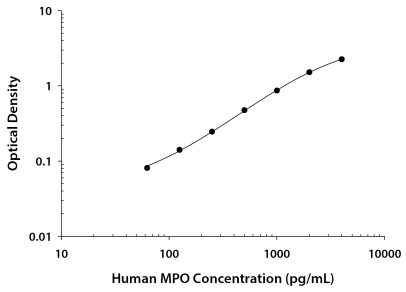
| **ELISA** | This antibody functions as an ELISA capture antibody when paired with Goat Anti-Human Myeloperoxidase/MPO Antigen Affinity-purified Polyclonal Antibody.<br><br>This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human Myeloperoxidase DuoSet ELISA Kit (Catalog # DY3174) for convenient development of a sandwich ELISA or the Human Myeloperoxidase Quantikine ELISA Kit (Catalog # DMYE00B) for a complete optimized ELISA. |

## DATA

**ELISA**




**Human Myeloperoxidase/MPO ELISA Standard Curve.** Recombinant Human Myeloperoxidase/MPO protein was serially diluted 2-fold and captured by Rat Anti-Human Myeloperoxidase/MPO Monoclonal Antibody (Catalog # MAB31741) coated on a Clear Polystyrene Microplate (Catalog # DY990). Goat Anti-Human Myeloperoxidase/MPO Antigen Affinity-purified Polyclonal Antibody was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

## PREPARATION AND STORAGE

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| **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.<br>*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.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## 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 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.



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