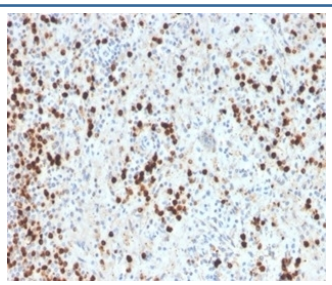
# Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R / MPO Antibody [clone MPO/33R] (V9350)

| Catalog No. | Formulation | Size |
|---|---|---|
| V9350-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V9350-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V9350SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

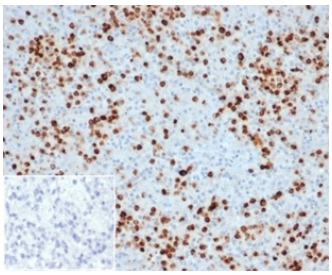
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

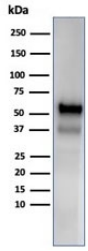
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | MPO/33R |
| **Purity** | Protein A/G affinity |
| **UniProt** | P05164 |
| **Localization** | Cytoplasm |
| **Applications** | Western Blot : 1-2ug/ml<br>Immunohistochemistry (FFPE) : 1-2ug/ml |
| **Limitations** | This Myeloperoxidase antibody is available for research use only. |



Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R / MPO Antibody. Immunohistochemistry analysis of Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R in FFPE human spleen tissue. Brown chromogenic staining identifies cytoplasmic Myeloperoxidase / MPO-positive myeloid cells distributed throughout the splenic tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.



IHC staining of FFPE human spleen tissue with recombinant Myeloperoxidase antibody (clone MPO/33R). Negative control inset: PBS instead of primary antibody to control for secondary binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.




Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R / MPO Antibody. Western blot analysis of human spleen tissue lysate using Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R. A band is detected at approximately 60 kDa, consistent with the predicted molecular weight of the Myeloperoxidase / MPO alpha chain (59-64 kDa). Higher molecular weight bands may also be observed due to glycosylation or the presence of the mature glycosylated MPO complex that can migrate above 150 kDa.

## Description

Myeloperoxidase (MPO) is a heme-containing oxidoreductase enzyme encoded by the MPO gene and is highly abundant in the azurophilic granules of neutrophils. This enzyme plays a central role in the innate immune response by catalyzing the formation of potent oxidants during the respiratory burst of activated phagocytes. Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R recognizes Myeloperoxidase / MPO and enables detection of this key immune enzyme in studies focused on neutrophil biology, inflammation, and myeloid lineage cell function. MPO catalyzes the conversion of hydrogen peroxide and chloride ions into hypochlorous acid, a powerful antimicrobial oxidant that contributes to the destruction of engulfed pathogens.

Myeloperoxidase antibody, also referred to as MPO antibody or myeloid peroxidase antibody in the literature, detects a granule-associated enzyme that is strongly enriched in neutrophils and present at lower levels in monocytes and early myeloid precursors. Because MPO expression is highly characteristic of granulocytic lineage cells, the protein is widely used as a marker for identifying neutrophils and studying inflammatory cell infiltration in tissues. Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R supports analysis of MPO-positive cells in biological samples where immune cell recruitment, infection responses, or inflammatory processes are under investigation.

During neutrophil activation, MPO-containing granules fuse with phagosomes or are released extracellularly through degranulation. The enzyme contributes not only to antimicrobial defense but also to inflammatory signaling and oxidative modification of biomolecules. MPO-derived oxidants can react with proteins, lipids, and nucleic acids, linking MPO activity to both host defense mechanisms and tissue injury in chronic inflammatory conditions. As a result, MPO has been extensively studied in diseases including cardiovascular disease, autoimmune disorders, infection biology, and tumor-associated inflammation.

Detection of Myeloperoxidase using Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R enables researchers to identify granulocytic cells and evaluate neutrophil involvement in immune responses. Analysis of MPO expression can provide insight into inflammatory cell recruitment, granulocyte activation, and oxidative immune mechanisms in both normal physiology and disease. This rabbit monoclonal antibody provides a reliable reagent for research investigating innate immune defense, inflammatory signaling pathways, and myeloid cell biology.

## Application Notes

Optimal dilution of the Myeloperoxidase Antibody Rabbit Monoclonal MPO/33R should be determined by the researcher.

## Immunogen

A portion of amino acids 150-250 was used as the immunogen for the recombinant Myeloperoxidase antibody.

## Storage

Aliquot the Myeloperoxidase antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

## Alternate Names

MPO antibody, Myeloperoxidase antibody, Myeloid peroxidase antibody, Neutrophil MPO antibody