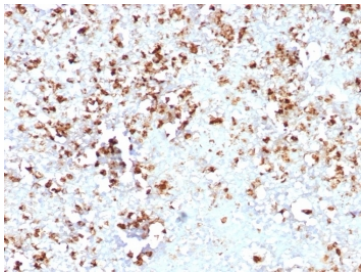
MPO Antibody Rabbit Monoclonal MPO/8631R / Myeloperoxidase Antibody [clone MPO/8631R] (V4526)

Catalog No.	Formulation	Size
V4526-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4526-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4526SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

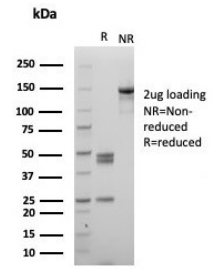
Recombinant RABBIT MONOCLONAL

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/8631R
Purity	Protein A/G affinity
UniProt	P05164
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This MPO antibody is available for research use only.



MPO Antibody Rabbit Monoclonal MPO/8631R / Myeloperoxidase Antibody. Immunohistochemistry analysis of MPO Antibody Rabbit Monoclonal MPO/8631R in FFPE human spleen tissue. Brown chromogenic staining highlights 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.



SDS-PAGE analysis of purified, BSA-free MPO Antibody Rabbit Monoclonal MPO/8631R as confirmation of integrity and purity.

Description

Myeloperoxidase (MPO) is a heme-containing peroxidase enzyme encoded by the MPO gene and is one of the most abundant proteins stored in the azurophilic granules of neutrophils. MPO plays a central role in innate immune defense by catalyzing the production of reactive oxidant species during the respiratory burst of activated phagocytes. MPO Antibody Rabbit Monoclonal MPO/8631R recognizes Myeloperoxidase / MPO and supports detection of this important enzyme in studies examining neutrophil biology, inflammatory responses, and myeloid cell function. Through its catalytic activity, MPO converts hydrogen peroxide and chloride ions into hypochlorous acid, a potent antimicrobial oxidant capable of destroying engulfed microorganisms.

Myeloperoxidase antibody, also referred to as MPO antibody or myeloid peroxidase antibody in the literature, detects a granule-associated enzyme that is highly enriched in neutrophils and present in monocytes and immature myeloid precursors. Because MPO expression is strongly associated with granulocytic lineage cells, the protein is widely used as a marker for identifying neutrophils and studying inflammatory infiltrates in tissues. MPO Antibody Rabbit Monoclonal MPO/8631R enables analysis of MPO-positive cells in biological samples where immune cell recruitment and innate immune responses are being investigated.

Within neutrophils, MPO is stored in cytoplasmic azurophilic granules and released during cell activation and degranulation. In addition to microbial killing, MPO-derived oxidants contribute to inflammatory signaling and oxidative modification of biological molecules. These oxidative reactions can influence immune regulation as well as tissue injury during chronic inflammation. As a result, MPO has been widely studied in disease processes including cardiovascular disease, autoimmune disorders, infection, and tumor-associated inflammation.

Detection of Myeloperoxidase using MPO Antibody Rabbit Monoclonal MPO/8631R allows researchers to identify granulocytic cells and evaluate neutrophil involvement in inflammatory responses. Analysis of MPO expression can provide insight into immune cell recruitment, granulocyte activation, and oxidative immune mechanisms in both normal and pathological tissues. This rabbit monoclonal antibody provides a defined reagent for studies investigating innate immune biology, inflammatory disease pathways, and myeloid lineage cell activity.

Explore our Myeloperoxidase Antibody / Neutrophil Marker Antibody page for additional validation data and applications involving neutrophil identification, myeloid lineage analysis, and innate immune cell detection.

Application Notes

Optimal dilution of the MPO Antibody Rabbit Monoclonal MPO/8631R should be determined by the researcher.

Immunogen

A recombinant fragment of human MPO protein was used as the immunogen for the MPO antibody.

Storage

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

Alternate Names

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

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