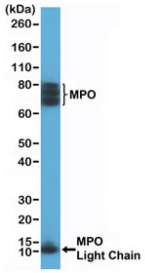
Myeloperoxidase Antibody for WB / MPO Western Blot Antibody [clone RM407] (R20423)

Catalog No.	Formulation	Size
R20423-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

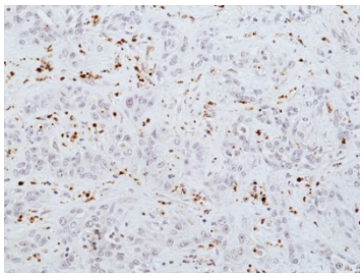
Recombinant RABBIT MONOCLONAL

Bulk quote request

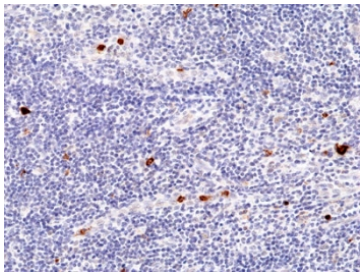
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM407
Purity	Protein A purified from animal origin-free supernatant
UniProt	P05164
Localization	Nuclear and cytoplasmic
Applications	Immunohistochemistry (FFPE): 1:100-1:200 Western blot: 1:200-1:500
Limitations	This Myeloperoxidase antibody is available for research use only.



Myeloperoxidase Antibody for WB / MPO Western Blot Antibody (clone RM407). Western blot analysis of human HL60 cell lysate using recombinant Myeloperoxidase antibody for WB (clone RM407) at 1:200 dilution. Bands are detected at approximately 13 kDa and ~70-75 kDa, consistent with the light (beta) chain and the heavy (alpha) chain associated form of Myeloperoxidase / MPO. Additional higher molecular weight signal near ~150 kDa may represent the mature glycosylated MPO enzyme complex. The presence of multiple bands reflects the known proteolytic processing and glycosylation of MPO during granulocyte maturation.



Myeloperoxidase Antibody Cholangiocarcinoma IHC. Immunohistochemistry staining of FFPE human cholangiocarcinoma tissue with recombinant Myeloperoxidase antibody at 1:100.



Myeloperoxidase Antibody Human Tonsil Tissue IHC. Immunohistochemistry staining of FFPE human tonsil tissue with recombinant Myeloperoxidase antibody at 1:100.

Description

Myeloperoxidase (MPO) is a heme-containing peroxidase enzyme encoded by the MPO gene and predominantly expressed in neutrophils and other cells of the myeloid lineage. Myeloperoxidase Antibody for WB / MPO Western Blot Antibody (clone RM407) enables detection of MPO protein by western blot, allowing researchers to evaluate expression of this important enzyme in cell lysates and tissue extracts. Western blot analysis of MPO provides a biochemical method for confirming the presence of myeloid lineage proteins and studying inflammatory or immune cell activity.

Myeloperoxidase antibody, also referred to as MPO antibody or myeloid peroxidase antibody in the literature, recognizes an abundant enzyme stored within azurophilic granules of neutrophils. During inflammatory responses, neutrophils release MPO as part of their antimicrobial defense mechanisms. Because MPO expression is largely restricted to granulocytic cells, western blot detection of MPO is frequently used to confirm the presence of neutrophils or myeloid-derived cells in experimental samples.

Western blot analysis of MPO reveals characteristic protein migration patterns reflecting the processing of the enzyme during granulocyte maturation. MPO is initially synthesized as a precursor protein that undergoes proteolytic processing and glycosylation to produce mature enzyme forms. In western blot assays, MPO is commonly detected as bands corresponding to the processed alpha chain at approximately 59-64 kDa, while additional higher molecular weight bands may represent glycosylated or precursor forms of the enzyme.

Because of these biochemical properties, MPO western blot signals can include both the processed alpha chain and larger glycosylated species depending on the cellular context and maturation state of the myeloid cells analyzed. Detection of these bands by western blot provides insight into MPO expression and processing in neutrophil lineage cells and other MPO-expressing populations.

Myeloperoxidase Antibody for WB (clone RM407) supports western blot detection of the Myeloperoxidase / MPO enzyme in lysates from tissues and cells containing myeloid lineage populations. This recombinant rabbit monoclonal antibody enables researchers to analyze MPO protein expression and evaluate inflammatory or immune cell activity using western blot assays.

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

The stated application concentrations are suggested starting points. Titration of the Myeloperoxidase Antibody for WB

may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the internal region of light chain on Myeloperoxidase/MPO was used as the immunogen for the recombinant Myeloperoxidase antibody.

Storage

Store the Myeloperoxidase antibody at -20oC.

Alternate Names

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

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