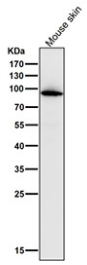
MPO Antibody for WB / Myeloperoxidase Western Blot Antibody [clone 32M13] (FY12854)

Catalog No.	Formulation	Size
FY12854	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32M13
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P05164
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200
Limitations	This MPO antibody is available for research use only.



MPO Antibody for WB / Myeloperoxidase Western Blot Antibody (clone 32M13). Western blot analysis of mouse skin lysate using MPO antibody for WB (clone 32M13) at 1:1000 dilution for 1 hour at room temperature. A prominent band is detected at approximately 70-75 kDa, consistent with the predicted molecular weight of the Myeloperoxidase / MPO alpha chain. The observed band may migrate slightly higher depending on glycosylation state, which is common for MPO due to post-translational modification of the enzyme in granulocytic cells.

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. MPO Antibody for WB / Myeloperoxidase Western Blot Antibody enables detection of MPO protein in cell and tissue lysates using western blot analysis. Western blot detection of MPO provides a biochemical method for confirming expression of this enzyme in samples containing granulocytic or myeloid-derived cells.

Myeloperoxidase antibody, also referred to as MPO antibody or myeloid peroxidase antibody in the literature, detects an enzyme stored in the azurophilic granules of neutrophils. When neutrophils become activated, MPO participates in antimicrobial defense by catalyzing the production of reactive oxidant species. Because MPO expression is largely restricted to neutrophils and certain myeloid precursor cells, western blot analysis of MPO is frequently used to confirm the presence of myeloid lineage proteins in experimental samples.

Western blot experiments using MPO Antibody for WB typically reveal bands corresponding to the processed forms of the enzyme produced during granulocyte maturation. MPO is synthesized as a precursor protein that undergoes proteolytic cleavage and glycosylation to generate mature subunits. In western blot assays, MPO is commonly detected as a band corresponding to the heavy alpha chain at approximately 59-64 kDa, while smaller bands may represent the beta light chain produced during enzymatic processing.

Depending on the sample type and processing state of the enzyme, western blot analysis may also reveal higher molecular weight MPO species. These signals can represent glycosylated or partially processed forms of the enzyme present within neutrophil granules. Because MPO undergoes several maturation steps, western blot detection can produce multiple bands that reflect different stages of enzyme processing and assembly.

MPO Antibody for WB supports western blot detection of the Myeloperoxidase / MPO enzyme in lysates derived from immune cells, inflammatory tissues, or myeloid cell lines. This rabbit monoclonal antibody clone 32M13 enables researchers to examine MPO protein expression and evaluate the presence of neutrophil lineage cells through western blot analysis.

For additional markers involved in intracellular signaling, metabolism, and cellular regulation, visit our Cell Biology Antibodies page.

Application Notes

Optimal dilution of the MPO Antibody for WB should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Myeloperoxidase was used as the immunogen for the MPO antibody.

Storage

Store the MPO antibody at -20oC.

Alternate Names

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