10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody

Myeloperoxidase Antibody
Catalog # ASR4612

Specification

Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Polyclonal**
Application	**WB, E, IP, I, LCI**
Application Note	**This antibody is tested by western blotting suitable for ELISA and immunoprecipitation. Although not tested, this antibody is likely functional in immunohistochemistry and other immunological methods. Anti-Human Myeloperoxidase may react with MPO from other sources. Anti-Human Myeloperoxidase detects neutrophilic granulocytes and monocytes in blood and precursors of granulocytes in the bone marrow. This antibody may also detect myeloid leukemias of the bone marrow as well as other sites.**
Physical State	**Lyophilized**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Myeloperoxidase [Human Leukocytes]**
Reconstitution Volume	**100 µL**
Reconstitution Buffer	**Restore with deionized water (or equivalent)**
Preservative	**0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!**

Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody - Additional Information

Gene ID 4353

Other Names
4353

Purity
This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-rabbit serum, purified and partially purified Myeloperoxidase [Human Leukocytes]. Cross reactivity against Myeloperoxidase from other tissues and species may occur but have not been specifically determined.

Storage Condition
Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody - Protein Information

Name MPO (HGNC:7218)

Function
Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity (PubMed:9922160). Mediates the proteolytic cleavage of alpha-1-microglobulin to form t-alpha-1-microglobulin, which potently inhibits oxidation of low-density lipoprotein particles and limits vascular damage (PubMed:25698971).

Cellular Location
Lysosome.

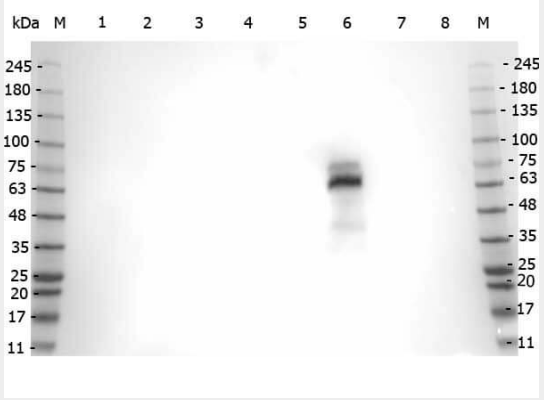
Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western Blot of Rabbit anti-Myeloperoxidase antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-364). Lane 3: MCF-7 Lysate (p/n W09-000-360). Lane 4: Jurkat Lysate (p/n W09-000-370). Lane 5: A549 Lysate (p/n W09-001-372). Lane 6: HL-60 Lysate (p/n W09-001-GL3). Lane 7: Raji Lysate (p/n W09-001-368). Lane 8: NIH/3T3 Lysate (p/n W10-000-358). Load: 35 µg per lane. Primary antibody: Myeloperoxidase antibody at 1:10,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS (p/n MB-082) for 30 min at RT. Predicted/Observed size: 84kDa for Myeloperoxidase.

Anti-Myeloperoxidase [Human Leukocytes] (RABBIT) Antibody - Background

Human myeloperoxidase (MPO) is a dimeric protein composed of two heavy subunits (53 kDa) and two light subunits (15 kDa). Each MPO molecule contains two prosthetic porphyrins which play an important role in the catalytic cycle. Molecular weights for MPO isoforms from pools of normal human samples range from 114,000 to 140,000 daltons reflecting a heterogeneous mixture of isoforms when assayed under non-reducing conditions of SDS-PAGE. Often MPO from a single donor will yield a homogenous preparation reflecting a single isoform. The carbohydrate component of MPO, consisting of mannose, glucose and N-acetylglucosamine residues is 2.5%. MPO is inhibited by azide and other compounds. MPO is stored in primary granules of neutrophils and serves as a bactericidal agent in that MPO catalyzes the production of hypochlorous acid (HOCl), a powerful oxidant. HOCl is derived from chloride ion (Cl-) and hydrogen peroxide (H2O2). In a number of inflammatory situations, MPO is released into the extracellular matrix where its measurement can be used as an indication of neutrophil activation.