



Myeloperoxidase (MPO, pANCA, 84kD Myeloperoxidase, 89kD Myeloperoxidase, Myeloperoxidase Heavy Chain, Myeloperoxidase Light Chain)

Catalog number

M9760-10K

Supplier

United States Biological

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. MPO is an important marker for myeloid cells, from the promyelocyte stage and to the mature forms. CATALYTIC ACTIVITY: Donor + H₂O₂ = oxidized donor + 2 H₂O. CATALYTIC ACTIVITY: Cl⁻ + H₂O₂ = HOCl + 2 H₂O. COFACTOR: Binds 1 calcium ion per heterodimer. COFACTOR: Binds 1 heme B (iron-protoporphyrin IX) group covalently per heterodimer. SUBUNIT: Tetramer of two light chains and two heavy chains.

Cellular Localization

Lysosome.

Alternative Products

3 named isoforms produced by alternative splicing. DISEASE: Defects in MPO are the cause of myeloperoxidase deficiency (MPD). MPD is an autosomal recessive defect that results in disseminated candidiasis. Belongs to the peroxidase family. XPO subfamily.

Applications

Suitable for use in Western Blot and Immunohistochemistry. Other applications not tested.

Recommended Dilution

Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage and to avoid repeated freezing and thawing, aliquot Store at -20°C. Aliquots are stable for at least 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

Myeloperoxidase isolated from human polymorphonuclear leucocytes.

Formulation

Reconstitute in 250 ul of sterile water. Centrifuge to remove any insoluble material.

Purity

Purified by affinity chromatography.



Specificity

This antiserum reacts with human myeloperoxidase. Species Crossreactivity: Human

Product Type

Pab

Source

human

Isotype

IgG

Grade

Affinity Purified

Applications

IHC WB

Crossreactivity

Hu

Storage

-20°C

Reference

1. Arber D.A. et al. Am J Clin Pathol. 2001; 116:25-33 ; 2. Kimura S et al. Proteins 1988;3:113-20. ; 3. Weil S.C. et al. Science 1988;240:790-2. ; 4. Lanza F. J Mol Med 1998;76:676-81. ; 5. Pinkus G.S. Mod Pathol 1991;4:733-41.