

## Rabbit polyclonal antibody to human Myeloperoxidase (714-728): Affinity purified

<b>Catalogue No.:</b>	R-1073-100
<b>Description:</b>	<p>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. MPO is an important marker for myeloid cells, from the promyelocyte stage and to the mature forms. CATALYTIC ACTIVITY: Donor + H<sub>2</sub>O<sub>2</sub> = oxidized donor + 2 H<sub>2</sub>O. CATALYTIC ACTIVITY: Cl<sup>-</sup> + H<sub>2</sub>O<sub>2</sub> = HOCl + 2 H<sub>2</sub>O. 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. SUBCELLULAR LOCATION: Lysosome. ALTERNATIVE PRODUCTS: At least 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. SIMILARITY: Belongs to the peroxidase family. XPO subfamily. Microglia and astrocytes are known to express MPO as well.</p>
<b>Batch No.:</b>	See product label
<b>Unit size:</b>	100 ug
<b>Antigen:</b>	A synthetic peptide (KNNIFMSNSYPRDFV) corresponding to a region (714-728) at the C-terminus of human Myeloperoxidase (MPO).
<b>Other Names:</b>	MPO; EC 1.11.1.7; Myeloperoxidase;
<b>Accession:</b>	P05164 PERM_HUMAN;
<b>Produced in:</b>	Rabbit
<b>Purity:</b>	Affinity purified on antigen column
<b>Applications:</b>	Immunohistochemistry (IHC) and Western Blotting (WB). A concentration of 0.1-0.5 ug/mL is recommended for WB. Human MPO (isoform H17) has a predicted length of 745 residues and MW of 84 kDa. A concentration of 0.5-1.0 ug/mL is recommended to detect the protein in formalin/paraffin embedded tissues. Heat mediated antigen retrieval in 10 mM citrate buffer, pH 6.0 for 20 minutes is required. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
<b>Specificity:</b>	The specificity of this antibody has been confirmed by WB and IHC against the antigen.
<b>Cross-reactivity:</b>	Human; rat; predicted to react with mouse
<b>Form:</b>	Lyophilised with 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg Na <sub>3</sub>
<b>Reconstitution:</b>	Reconstitute in 100 uL of sterile distilled water to achieve an antibody concentration of 1 mg/mL. Centrifuge to remove any insoluble material.
<b>Storage:</b>	At least 12 months after purchase at -20C (lyophilized formulations). After reconstitution, aliquot and store at -20C for a higher stability. Avoid freeze-thaw cycles.
<b>Expiry Date:</b>	12 months after purchase

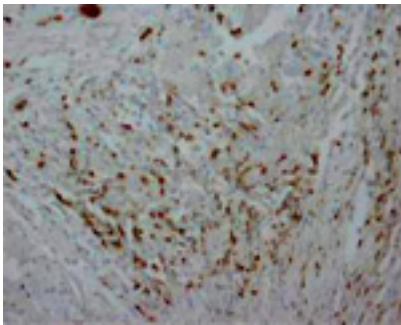
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FOR RESEARCH USE ONLY

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### References:

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.
6. Gray E. et al. Brain Pathol. 2008 Jan;18(1):86-95.
7. Maki R.A. et al. J Biol Chem. 2009 Jan 30;284(5):3158-69.



Immunohistochemical staining using rabbit polyclonal antibody to human Myeloperoxidase in paraffin-embedded sections of human ovary at 0.5-1 ug/ml. Secondary biotinylated goat anti-rabbit IgG antibody at 10 ug/ml.

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