

Recombinant Human Myeloperoxidase

Cat. No. MPO-63H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Myeloperoxidase was expressed in E. coli.
Species	Human
Source	E.coli
Description	Myeloperoxidase (MPO) is a hemoprotein that is abundantly expressed in polymorphonuclear leukocytes (neutrophils) and secreted during their activation. The presence of a peroxidase in the cytoplasmic granules of leukocytes was suggested at the beginning of 20th century but it was the early 1940s that it was purified for the first time. Native MPO is a covalently bound tetrameric complex of two glycosylated alpha chains (MW 59 – 64 kDa) and two unglycosylated beta chains (MW 14 kDa) with total MW about 150 kDa and theoretical pI 9.2. MPO plays an important role in neutrophil microbicidal action through catalyzing chloride ion oxidation to hypochlorous acid, which is a potent antimicrobial agent.
Form	The protein solution is in 0.05M phosphate buffer containing 0.15M NaCl and 0.09% NaN ₃ pH 7.5. Filtered through a 0.4µm membrane
Molecular Mass	14.4kDa
Endotoxin	< 1.0 eu per µg of the protein as determined by the LAL method.
Purity	>95 % as determined by SDS-PAGE

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Applications	Western blotting, ELISA
Storage	Store it under sterile conditions at -20°C to -112°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.
GENE INFORMATION	
Gene Name	MPO myeloperoxidase [Homo sapiens]
Official Symbol	MPO
Synonyms	MPO; myeloperoxidase;
Gene ID	4353
mRNA Refseq	NM_000250
Protein Refseq	NP_000241
MIM	606989
UniProt ID	P05164
Chromosome Location	17q21.3-q23
Pathway	C-MYB transcription factor network, organism-specific biosystem; Folate Metabolism, organism-specific biosystem; IL23-mediated signaling events, organism-specific biosystem; Phagosome, organism-specific biosystem; Phagosome, conserved biosystem; Selenium Pathway, organism-specific biosystem; Transcriptional misregulation in cancer, organism-specific biosystem;

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Function

chromatin binding; heme binding; heparin binding; metal ion binding; oxidoreductase activity; peroxidase activity;

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