MPO Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	MPO, Recombinant Protein
Full Product Name	Recombinant Human MPO
Product Gene Name	MPO recombinant protein
Product Synonym Names	84kDa myeloperoxidase; 89kDa myeloperoxidase; EC 1.11.1.7; EC1.11.2.2; fj80f04; MPO; mpx; myeloid-specific peroxidase; Myeloperoxidase; Myeloperoxidase heavy chain; Myeloperoxidase light chain; PERM_HUMAN; wu:fj80f04
Host	E Coli
Form/Format	Lyophilized from a 0.2um filtered solution in PBS with 5% trehalose and 0.06% proclin, pH7.4
Purity/Purification	Greater than 90% by SDS-PAGE gel analyses
Preparation and Storage	Store at -20 degree C for 12 months as lyophilized; 2-8 degree C for 1 month under sterile conditions after reconstitution
Molecular Weight	83,869 Da
Sequence Positions	49-745
Chromosome Location	Chromosome: 17; NC_000017.10 (56347217..56358296, complement). Location: 17q23.1
OMIM	254600
3D Structure	ModBase 3D Structure for P05164
Species	Human
Tag	N-terminal His-Tag
Reconstitution	Centrifuge the vial at 10,000rpm for 1 minute, reconstitute at 200ug/ml in sterile distilled water
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for MPO recombinant protein	Western Blot (WB), ELISA (EIA)
Related Product Information for MPO recombinant protein	MBS7614732 is a recombinant protein targeting MPO. Also known as Recombinant Human MPO. Host: E Coli.
Other Notes	Small volumes of MPO recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MPO. It may not necessarily be applicable to this product.

NCBI GI #	188658
NCBI GeneID	4353
NCBI Accession #	AAA59863.1
UniProt Primary Accession #	P05164
UniProt Secondary Accession #	Q14862; Q4PJH5; Q9UCL7; A1L4B8

UniProt Related Accession #	P05164
NCBI Official Full Name	myeloperoxidase
NCBI Official Synonym Full Names	myeloperoxidase
NCBI Official Symbol	MPO
UniProt Protein Name	Myeloperoxidase
Protein Family	Myeloperoxidase
UniProt Gene Name	MPO
UniProt Synonym Gene Names	MPO
UniProt Entry Name	PERM_HUMAN
NCBI Protein Information	myeloperoxidase
NCBI Summary for MPO	Myeloperoxidase (MPO) is a heme protein synthesized during myeloid differentiation that constitutes the major component of neutrophil azurophilic granules. Produced as a single chain precursor, myeloperoxidase is subsequently cleaved into a light and heavy chain. The mature myeloperoxidase is a tetramer composed of 2 light chains and 2 heavy chains. This enzyme produces hypohalous acids central to the microbicidal activity of netrophils. [provided by RefSeq, Jul 2008]
UniProt Comments for MPO	MPO: 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. Homodimer; disulfide-linked. Each monomer consists of a light and a heavy chain. Belongs to the peroxidase family. XPO subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Oxidoreductase; EC 1.11.2.2 Chromosomal Location of Human Ortholog: 17q23.1 Cellular Component: extracellular space; azurophil granule; mitochondrion; lysosome; nucleus; secretory granule Molecular Function: heparin binding; peroxidase activity; metal ion binding; heme binding; chromatin binding Biological Process: respiratory burst during defense response; response to food; removal of superoxide radicals; response to mechanical stimulus; hydrogen peroxide catabolic process; response to lipopolysaccharide; response to yeast; defense response; response to oxidative stress; defense response to fungus; negative regulation of apoptosis; aging Disease: Myeloperoxidase Deficiency; Alzheimer Disease
Research Articles on MPO	**1.** the MPO G-463A variant genotypes may be associated with decreased risk of CAD. However, given the limited number of studies and the potential biases, the influence of this polymorphism on CAD risk needs further investigation.
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