Datasheet for ABIN7505581

Myeloperoxidase Protein (MPO) (AA 49-745) (His tag)

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Overview

Quantity:	100 µg
Target:	Myeloperoxidase (MPO)
Protein Characteristics:	AA 49-745
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Myeloperoxidase protein is labelled with His tag.

Product Details

Sequence:	Ala49-Ser745
Characteristics:	Recombinant Human Myeloperoxidase is produced by our Mammalian expression system and the target gene encoding Ala49-Ser745 is expressed with a 10His tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	<1.0 EU per µg of the protein as determined by the LAL method.

Target Details

Target:	Myeloperoxidase (MPO)
Alternative Name:	Myeloperoxidase (MPO Products)
Background:	Abbreviation: Myeloperoxidase,MPO Target Synonym: Myeloperoxidase,MPO Background: Myeloperoxidase (MPO) is a heme-containing enzyme belonging to the XPO

Target Details

	subfamily of peroxidases. It is an abundant neutrophil and monocyte glycoprotein that catalyzes the hydrogen peroxide-dependent conversion of chloride, bromide, and iodide to multiple reactive species. Post-translational processing of MPO involves the insertion of a heme moiety and the proteolytic removal of both a propeptide and a 6 aa internal peptide. This results in a disulfide-linked dimer composed of a 60 kDa heavy and 12 kDa light chain that associate into a 150 kDa enzymatically active tetramer. The tetramer contains two heme groups and one disulfide bond between the heavy chains. Alternate splicing generates two additional isoforms of MPO, one with a 32 aa insertion in the light chain, and another with a deletion of the signal sequence and part of the propeptide. Human and mouse MPO share 87 % aa sequence identity. MPO activity results in protein nitrosylation and the formation of 3-chlorotyrosine and dityrosine crosslinks. MPO is also associated with a variety of other diseases, and inhibits vasodilation in inflammation by depleting the levels of NO. Serum albumin functions as a carrier protein during MPO movement to the basolateral side of epithelial cells. MPO is stored in neutrophil azurophilic granules. Upon cellular activation, it is deposited into pathogen-containing phagosomes.
Molecular Weight:	Calculated MW: 80.3 kDa Observed MW: 85-95 kDa
UniProt:	P05164
Pathways:	Chromatin Binding

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from a 0.2 um filtered solution of 20 mM Tris-HCl, 150 mM NaCl, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization.
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Handling

Expiry Date:	12 months