Datasheet for ABIN7318796

# Myeloperoxidase Protein (MPO) (His tag)

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## Overview

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| Quantity: | 50 µg |
| Target: | Myeloperoxidase (MPO) |
| Origin: | Human |
| Source: | Human Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This Myeloperoxidase protein is labelled with His tag. |

## Product Details

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| Purpose: | Recombinant Human Myeloperoxidase/MPO Protein (His Tag) |
| 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: | > 90 % as determined by reducing SDS-PAGE. |
| Endotoxin Level: | < 1.0 EU per µg as determined by the LAL method. |

## Target Details

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| Target: | Myeloperoxidase (MPO) |
| Alternative Name: | Myeloperoxidase/MPO (MPO Products) |
| Background: | Background: Myeloperoxidase (MPO) is a heme-containing enzyme belonging to the XPO subfamily of peroxidases. It is an abundant neutrophil and monocyte glycoprotein that catalyzes the hydrogen peroxide-dependent conversion of chloride, bromide, and iodide to |

## Target Details

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| | 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.<br>Synonym: Myeloperoxidase, MPO |
| Molecular Weight: | 80.3 kDa |
| UniProt: | P05164 |
| Pathways: | Chromatin Binding |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | Please refer to the printed manual for detailed information. |
| Buffer: | Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 150 mM NaCl, pH 8.0 . |
| 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. |