

Recombinant Human MPO Protein (Met1-Ser745), His-tagged

Cat. No. MPO-527H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MPO Protein (NP_000241.1) (Met1-Ser745) was produced by Baculovirus-Insect Cells expression system. This protein was expressed with a polyhistidine tag at the C-terminus.
Species	Human
Source	Insect Cells
ProteinLength	Met1-Ser745
Description	MPO (myeloperoxidase) is a peroxidase enzyme secreted by activated leukocytes that plays a pathogenic role in cardiovascular disease, mainly by initiating endothelial dysfunction. Myeloperoxidase (MPO) is an important enzyme, which is one of the components of the antibacterial system in neutrophils and monocytes. MPO participates in the inflammatory response in multiple locations in the body, including the mammary glands. Myeloperoxidase (MPO), a specific polymorphonuclear leukocyte enzyme, has been used previously to quantify the number of neutrophils in tissue. MPO activity was found to be linearly related to the number of neutrophil cells. The MPO system plays an important role in the control of infections and the deletion of malignant cells. Nevertheless, alternations in the MPO system can lead to DNA damage and carcinogenesis. Polymorphisms in the MPO Gene have been associated with an increased expression of MPO and a higher risk for development of cancer. Myeloperoxidase (MPO) is one of the major target antigens of antineutrophil cytoplasmic autoantibodies (ANCA) found in patients with small-vessel vasculitis and pauci-immune necrotizing glomerulonephritis.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

hritis. Myeloperoxidase-anti-neutrophil cytoplasmic antibody (MPO-ANCA) is an autoantibody that is frequently found in patients with vasculitides.

Predicted N Terminal	Ala 49
Form	Lyophilized from sterile 20 mM Tris, pH 8.0, 500 mM NaCl, 10 % glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human MPO consists of 708 amino acids and predicts a molecular mass of 80.4 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 90 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

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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

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