

Myeloperoxidase/MPO Protein, Mouse (HEK293, His)

Cat. No.:	HY-P70282
Synonyms:	rMuMyeloperoxidase/MPO, His; Myeloperoxidase; MPO
Species:	Mouse
Source:	HEK293
Accession:	P11247 (M16-T718)
Gene ID:	17523
Molecular Weight:	81-100 kDa

PROPERTIES

AA Sequence

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MLQTSNGATP   ALLGEVENSV   VLSCMEEAKQ   LVDRAYKERR
ESIKRSLQSG   SASPTLLFY    FKQPVAGTRT   AVRAADYLHV
ALDLLKRKLQ   PLWPRPFNVT   DVLTPAQLNL   LSVSSGCAYQ
DVRVTCPPND   KYRTITGHCN   NRRSPTLGAS   NRAFVRWLPA
EYEDGVSMFF   GWTPGVNRNG   FKVPLARQVS   NAIVRFPNDQ
LTKDQERALM   FMQWGQFLDH   DITLTPEPAT   RFSFFTGLNC
ETSCLQQPPC   FPLKI PPNDP  RIKNQKDCIP   FFRSCTACTR
NNITIRNQIN   ALTSFVDASG   VYGS EDPLAR  KLRNLTNQLG
LLAINTRFQD   NGRALMPFDS   LHDDPCLLTN   RSARIPCFLA
GDMRSSEMPE   L TSMHTLFVR  EHNRLATQLK   RLNPRWNGEK
LYQEARKIVG   AMVQIITYRD   YLPLVLGPAA   MKKYLPQYRS
YNDSDVPRIA   NVFTNAFRYG   HTLIQPFMFR   LNNQYRPTGP
NPRVPLSKVF   FASWRVVEG   GIDPILRGLM   ATPAKLNRQN
QIVVDEIRER   LFEQVMRIGL   DLPALNMQRS   RDHGLPGYNA
WRRFCGLPQP   STVGELGTVL   KNLELARKLM   AQYGT PNNID
IWMGGVSEPL   EPNGRVGQLL   ACLIGTQFRK   LRDGDRFWE
NPGVFSKQQR   QALASISLPR   IICDNTGITT   VSKNNIFMSN
TYPRDFVSCN   TLPKLNLT SW  KET
  
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Biological Activity Measured by its ability to oxidize guaiacol in the presence of hydrogen peroxide., The specific activity is 16375.8504 pmol/min/μg, as measured under the described conditions.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

Endotoxin Level <1 EU/μg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

Myeloperoxidase (MPO) protein plays a vital role in the host defense system of polymorphonuclear leukocytes, contributing to microbicidal activity against a diverse range of organisms. Upon stimulation of polymorphonuclear leukocytes, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid under physiological conditions, along with other toxic intermediates that significantly enhance microbicidal activity in these cells. Beyond its antimicrobial functions, MPO is involved in mediating the proteolytic cleavage of alpha-1-microglobulin, generating t-alpha-1-microglobulin. This processed form exhibits potent inhibitory effects on the oxidation of low-density lipoprotein particles, thereby contributing to the limitation of vascular damage.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA