

Human Myeloperoxidase / MPO ELISA Kit | MPO elisa kit

Myeloperoxidase / MPO Human ELISA Kit

CATALOG # AAA58945	REACTIVITY Human	APPLICATIONS ELISA
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PRODUCT SYNONYMS

Myeloperoxidase / MPO; Myeloperoxidase / MPO Human ELISA Kit; Human Myeloperoxidase / MPO; MPO elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Samples	Human serum, body fluids, tissue lysates or cell culture supernatants
Assay Type	Quantitative Sandwich
Detection Range	312 pg/ml-20,000 pg/ml
Sensitivity	< 10 pg/ml
Applicable Applications for MPO elisa kit	ELISA
Preparation and Storage	Store at 2-8 degree C for 4 months, or at -20 degree C for 8 months.

IMAGES

Typical Data & Standard Curve
Results of a typical standard run of a Human MPO ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	Pg/ml	0	312	625	1250	2500	5,000	10,000	20,000
Y	OD450	0.036	0.084	0.121	0.198	0.345	0.624	1.157	2.409

Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for MPO elisa kit

Principle of the Assay: This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-MPO polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-MPO polyclonal antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the MPO amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of MPO can be calculated.

Background/Introduction: Myeloperoxidase (MPO) is a peroxidase enzyme that in humans is encoded by the MPO gene which contains 12 exons and spans about 13 kb. Myeloperoxidase is most abundantly expressed in neutrophil granulocytes. It is a lysosomal protein stored in azurophilic granules of the neutrophil. The 150-kDa MPO protein is a dimer consisting of two 15-kDa light chains and two variable-weight glycosylated heavy chains bound to a prosthetic heme group. MPO produces hypochlorous acid (HOCl) from hydrogen peroxide (H₂O₂) and chloride anion (Cl⁻) during the neutrophil's respiratory burst. It requires heme as a cofactor. Furthermore, it oxidizes tyrosine to tyrosyl radical using hydrogen peroxide as an oxidizing agent.

NCBI AND UNIPROT INFORMATION

NCBI GI #	188658
NCBI GeneID	4353
UniProt Accession #	P05164; Q14862; Q4PJH5; Q9UCL7; A1L4B8
Molecular Weight	83,869 Da
NCBI Official Full Name	myeloperoxidase
NCBI Official Synonym Full Names	myeloperoxidase
NCBI Official Symbol	MPO
NCBI Protein Information	myeloperoxidase
UniProt Protein Name	Myeloperoxidase
UniProt Gene Name	MPO
UniProt Synonym Gene Names	MPO
UniProt Entry Name	PERM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/human-elisa-kits/myeloperoxidase-mpo/58945>