

Myeloperoxidase (MPO) Active Protein | MPO active protein

Active Myeloperoxidase (MPO)

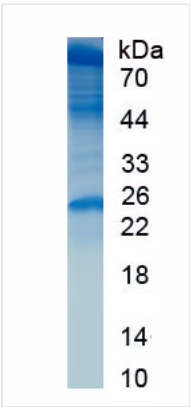
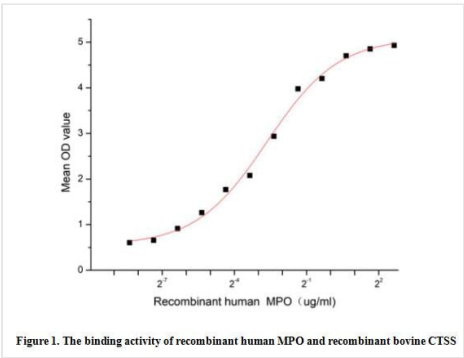
CATALOG # AAA161752	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Myeloperoxidase (MPO); Active Myeloperoxidase (MPO); Myeloperoxidase4; MPO active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 80% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ala49~Ser7 45
Applicable Applications for MPO active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	9
Research Area	Enzyme & Kinase, Infection immunity, Cardiovascular biology, Hepatology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



Bioactivity

Myeloperoxidase (MPO), a member of the XPO subfamily of peroxidases, is a 150 kDa heme protein produced mostly from polymorphonuclear neutrophils and monocytes. MPO is a part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity. Cathepsin S (CTSS) is one of targets of MPO, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human MPO and recombinant bovine CTSS. Briefly, biotin-linked MPO were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CTSS-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 ul stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human MPO and recombinant bovine CTSS was shown in Figure 1, the EC50 for this effect is 0.16 ug/mL.

SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for MPO active protein	Active proteins
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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.