Mouse myeloperoxidase,MPO ELISA Kit

Product Code	CSB-E08723m
Abbreviation	MPO
Protein Biological Process 1	Oxidative Stress
Target Name	myeloperoxidase
Uniprot No.	P11247
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Protein Biological Process 3	Hydrogen peroxide
Sample Types	serum, plasma, cell culture supernates, tissue homogenates
Detection Range	31.25 pg/mL-2000 pg/mL
Sensitivity	7.8 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	Mpo
Tag Info	quantitative
Protein Description	Sandwich

Description

The mouse MPO ELISA Kit is engineered for accurate measurement of mouse MPO levels from samples including serum, plasma, cell culture supernates, or tissue homogenates. It uses the Sandwich-ELISA mechanism in combination with the enzyme-substrate chromogenic reaction to measure the MPO content in the sample. The color intensity is positively correlated with MPO content in the sample. This kit has been validated against standards of sensitivity, specificity, precision, linearity, recovery, and lot-to-lot consistency.

MPO is a key component of the innate immune system and is mainly released by neutrophils to defend against invading pathogens. MPO catalyzes the reaction of H2O2 with chloride ions (Cl–) to form hypochlorous acid (HOCl), which facilitates the destruction of microbes contained within the phagolysosome. MPO, together with its oxidative products, interacts with many lipids, proteins, and nucleic acids leading to some harmful effects in host tissues

that are commonly related to ongoing inflammatory states such as atherosclerosis. MPO is ubiquitously distributed in atherosclerotic lesions and contributes to the initiation and progression of the disease mainly by oxidizing low-density lipoprotein (LDL) particles.

Target Details

Myeloperoxidase (MPO) is a heme protein synthesized during myeloid differentiation that constitutes the major component of neutrophil azurophilic granules. Produced as a single chain precursor, myeloperoxidase is subsequently cleaved into a light and heavy chain. The mature myeloperoxidase is a tetramer composed of 2 light chains and 2 heavy chains. This enzyme produces hypohalous acids central to the microbicidal activity of netrophils.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of mouse MPO in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:100	Average %	98
	Range %	92-104
1:200	Average %	87
	Range %	80-95
1:400	Average %	87
	Range %	85-90
1:800	Average %	95
	Range %	89-101

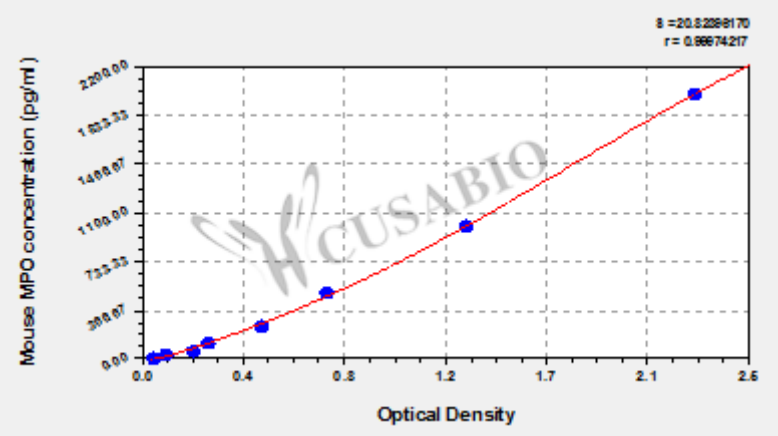
Recovery

The recovery of mouse MPO spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	88	82-95
EDTA plasma (n=4)	92	87-96

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
2000	2.293	2.233	2.263	2.212
1000	1.386	1.275	1.331	1.280
500	0.772	0.752	0.762	0.711
250	0.496	0.491	0.494	0.443
125	0.282	0.264	0.273	0.222
62.5	0.222	0.205	0.214	0.163
31.2	0.102	0.100	0.101	0.050
0	0.053	0.049	0.051	?

Msds

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