

Mouse Myeloperoxidase ELISA Kit (MPO) αb275109

Recombinant SimpleStep ELISA[®]

1 References 5 Images

Overview

Product name Mouse Myeloperoxidase ELISA Kit (MPO)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			3%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			6%

Sample type Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 117 pg/ml

Range 273.44 pg/ml - 17500 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	97	74% - 110%
Cell culture media	99	96% - 100%
Hep Plasma	115	108% - 120%
EDTA Plasma	108	102% - 118%
Cit plasma	119	110% - 126%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Mouse**Product overview**

Mouse Myeloperoxidase ELISA kit (ab275109) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Mouse Myeloperoxidase protein in serum, plasma and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Myeloperoxidase with 117 pg/mL sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

Myeloperoxidase (MPO) is part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. MPO is a hemoprotein expressed in the neutrophils (polymorphonuclear leukocytes) and is secreted during activation. Myeloperoxidase catalyzes the oxidation of chloride ions to hypochlorous acid, which is a potent antimicrobial agent. Myeloperoxidase pro-oxidative and pro-inflammatory properties cause an increase in MPO in multiple diseases including heart disease, myocardial infarction, and multiple sclerosis. Myeloperoxidase is a clinical marker of myocardial infarction and cardiovascular disease.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

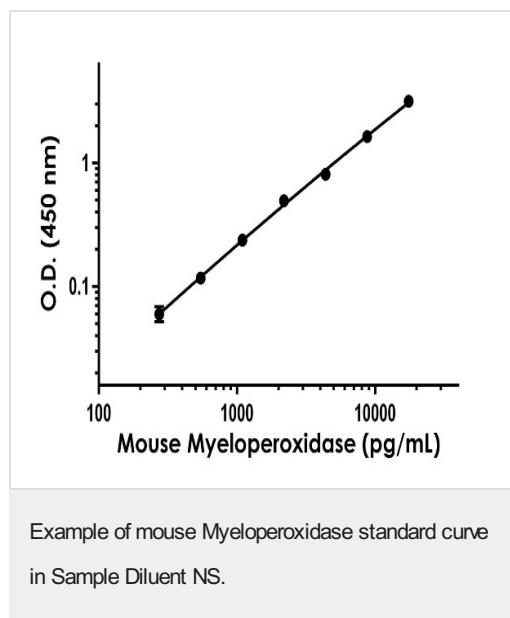
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests	1 x 96 tests
10X Mouse Myeloperoxidase (MPO) Capture Antibody	1 x 600µl	1 x 600µl
10X Mouse Myeloperoxidase (MPO) Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
Antibody Diluent CPR2	1 x 6ml	1 x 6ml

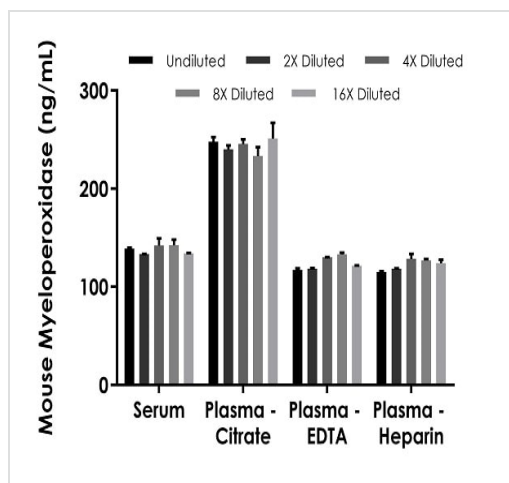
Components	1 x 96 tests	1 x 96 tests
Mouse Myeloperoxidase (MPO) Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	2 x 50ml	2 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

Function	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.
Involvement in disease	Defects in MPO are the cause of myeloperoxidase deficiency (MPD) [MIM:254600]. MPD is an autosomal recessive defect that results in disseminated candidiasis.
Sequence similarities	Belongs to the peroxidase family. XPO subfamily.
Cellular localization	Lysosome.

Images

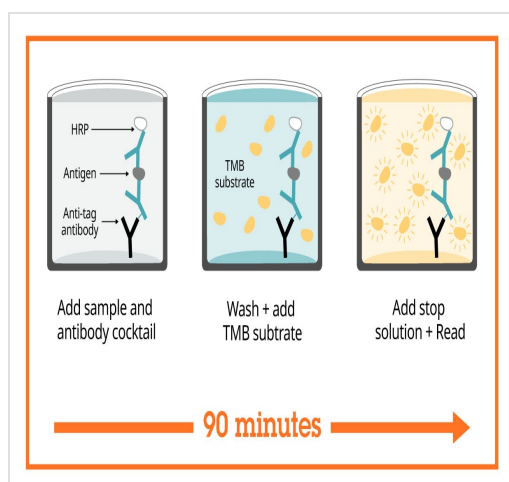


The Myeloperoxidase standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean \pm SD) are graphed.



Interpolated concentrations of native Myeloperoxidase in mouse serum and plasma samples.

The concentrations of Myeloperoxidase were measured in duplicates, interpolated from the Myeloperoxidase standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 7.5%, plasma (citrate) 3.8%, plasma (EDTA) 7.5% and plasma (heparin) 7.5%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean Myeloperoxidase concentration was determined to be 138 ng/mL in neat serum, 244 ng/mL in plasma (citrate) and 124 ng/mL in neat plasma (EDTA) and 123 ng/mL in neat plasma (heparin).



Sandwich ELISA - Mouse Myeloperoxidase ELISA Kit (MPO) (ab275109)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse Myeloperoxidase ELISA
Kit (MPO) (ab275109)

To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with
SimpleStep ELISA**



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Mouse Myeloperoxidase ELISA
Kit (MPO) (ab275109)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery

- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors