

Human Myeloperoxidase ELISA Kit ab272101

リコンビナント SimpleStep ELISA

1 References 画像数 8

製品の概要

製品名 Human Myeloperoxidase ELISA Kit  
検出方法 Colorimetric  
再現性

Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Overall	6			6%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Overall	3			6.1%

サンプルの種類 Cell culture supernatant, Saliva, Urine, Serum, Cell culture extracts, Cell culture media, EDTA Plasma, Cit plasma  
アッセイタイプ Sandwich (quantitative)  
検出感度 33.37 pg/ml  
検出範囲 93.75 pg/ml - 6000 pg/ml  
添加回収試験

特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Cell culture supernatant	99	94% - 104%
Saliva	103	94% - 118%
Urine	89	85% - 95%
Serum	91	88% - 94%
Cell culture extracts	104	99% - 108%
Cell culture media	94	86% - 98%

サンプルの種類	平均 %	測定範囲
EDTA Plasma	89	86% - 92%
Cit plasma	88	86% - 91%

全工程の試験時間

1h 30m

ステップ

One step assay

種交差性

交差種: Human

製品の概要

Human Myeloperoxidase Kit (ab272101) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Myeloperoxidase protein in human serum, plasma, cell culture supernatant, urine, milk, saliva, cell and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Myeloperoxidase with 33.37 ng/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.

特記事項

Human Myeloperoxidase (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.

The standard protein in this product is purified from whole blood shown to be non-reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

試験プラットフォーム

Microplate (12 x 8 well strips)

製品の特性

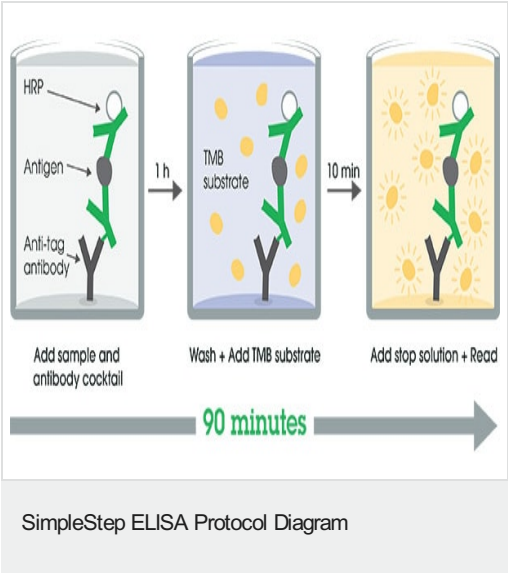
保存方法

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

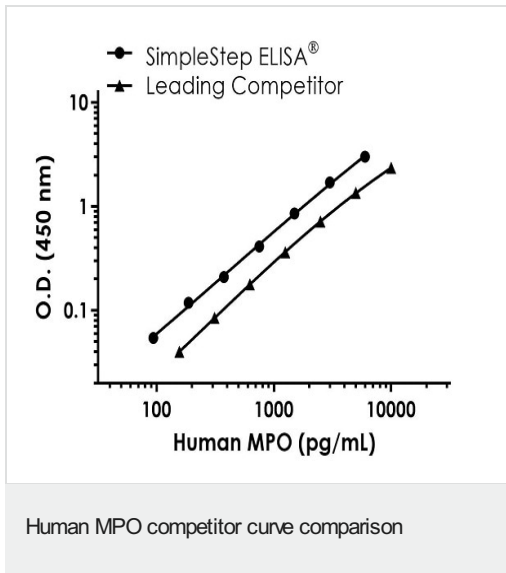
内容	1 x 96 tests	1 x 96 tests
10X Human Myeloperoxidase (MPO) Capture Antibody	1 x 600µl	1 x 600µl
10X Human Myeloperoxidase (MPO) Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml	1 x 10ml
Antibody Diluent CPI2	1 x 6ml	1 x 6ml
Human Myeloperoxidase (MPO) Lyophilized Purified Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (12 x 8 wells)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

機能	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.
関連疾患	Defects in MPO are the cause of myeloperoxidase deficiency (MPD) [MIM:254600]. MPD is an autosomal recessive defect that results in disseminated candidiasis.
配列類似性	Belongs to the peroxidase family. XPO subfamily.
細胞内局在	Lysosome.

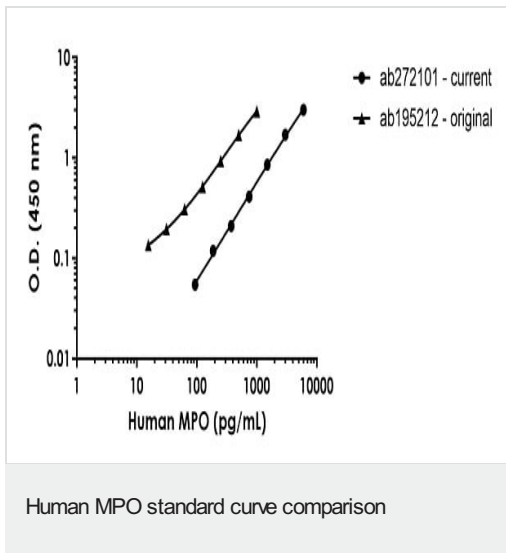
画像



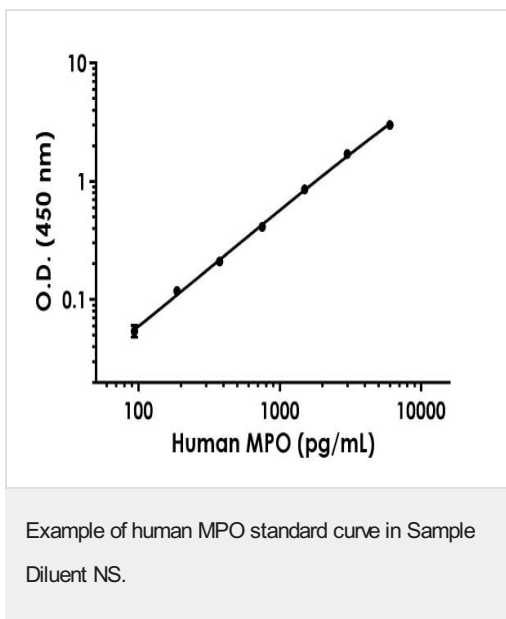
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



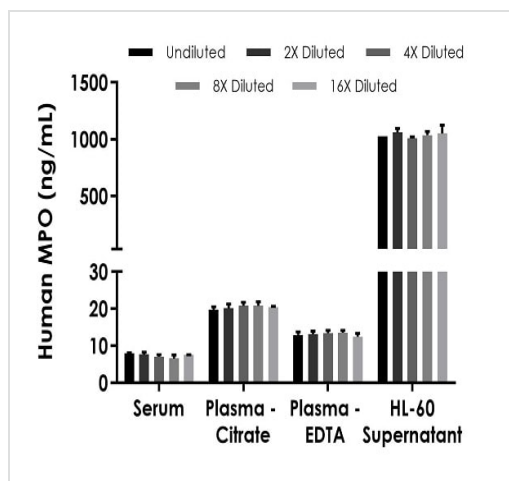
Standard Curve comparison between Human MPO SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



Standard Curve comparison between the original Human MPO SimpleStep ELISA kit ([ab195212](#)) and current Human MPO SimpleStep ELISA kit ([ab272101](#)).

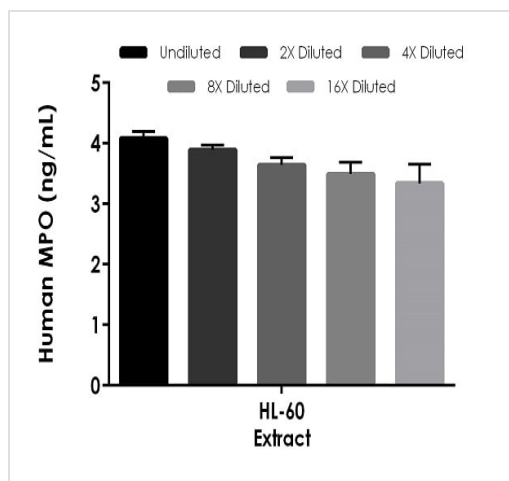


The MPO standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



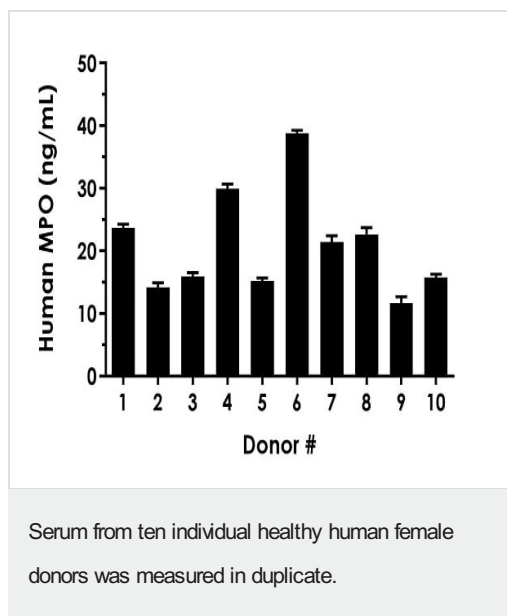
Interpolated concentrations of native MPO in human serum, plasma and cell culture supernatant samples.

The concentrations of MPO were measured in duplicates, interpolated from the MPO standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 12.5%, plasma (citrate) 25%, plasma (EDTA) 25%, and HL-60 supernatant 1: 200. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean MPO concentration was determined to be 7.38 ng/mL in serum, 20.34 ng/mL in plasma (citrate), 13.06 ng/mL plasma (EDTA), and 1,035.38 ng/mL in HL-60 supernatant.



Interpolated concentrations of native MPO in human HL-60 cell culture extract based on a 12.5  $\mu$ g/mL extract load.

The concentrations of MPO were measured in duplicate and interpolated from the MPO standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean MPO concentration was determined to be 3.69 ng/mL in HL-60 cell culture extract.



Interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean MPO concentration was determined to be 20.92 ng/mL with a range of 11.65–38.79 ng/mL.

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 - Human Myeloperoxidase ELISA Kit (ab272101)

To learn more about the advantages of recombinant antibodies 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.co.jp/abpromise> or contact our technical team.

## Terms and conditions

---

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