

Human Heme Oxygenase 1 ELISA Kit, Fluorescent
ab229429

Recombinant CatchPoint SimpleStep ELISA

6 Images

Overview

Product name Human Heme Oxygenase 1 ELISA Kit, Fluorescent

Detection method Fluorescent

Precision Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			3.1%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			3.8%

Sample type Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 3.5 pg/ml

Range 5.86 pg/ml - 6000 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	87	79% - 94%
Cell culture extracts	83	76% - 88%
Tissue Extracts	90	86% - 92%
EDTA Plasma	85	73% - 95%
Cit plasma	85	77% - 93%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human Does not react with: Goat, Cow, Pig
Product overview	<p>Heme Oxygenase 1 (HO 1) <i>in vitro</i> CatchPoint® SimpleStep ELISA® (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Heme Oxygenase 1 (HO 1) protein in human serum, plasma, cell and tissue extracts, and cell culture supernatants.</p> <p>This CatchPoint SimpleStep ELISA kit has been optimized for Molecular Devices Microplate Readers. Click here for a list of recommended Microplate Readers.</p> <p>If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at www.softmaxpro.org.</p> <p>The CatchPoint® SimpleStep ELISA® employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plate reader at 530/570/590 nm Excitation/Cutoff/Emission.</p>
Notes	<p>Heme oxygenase 1 is an enzyme that functions in heme catabolism. The activity of heme oxygenase 1 is to cleave the heme ring to form biliverdin. There are two isozymes of heme oxygenase that have 56% amino acid sequence identity: inducible heme oxygenase 1 and constitutively expressed heme oxygenase 2.</p> <p>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.</p> <p>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.</p>
Platform	Pre-coated microplate (12 x 8 well strips)

Properties

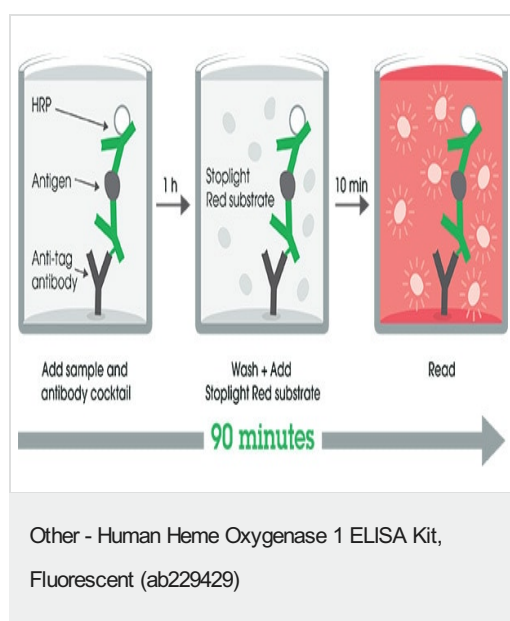
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
100X Stoplight Red Substrate	1 x 120µl
10X Wash Buffer PT (ab206977)	1 x 20ml
500X Hydrogen Peroxide (H2O2, 3%)	1 x 50µl
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml

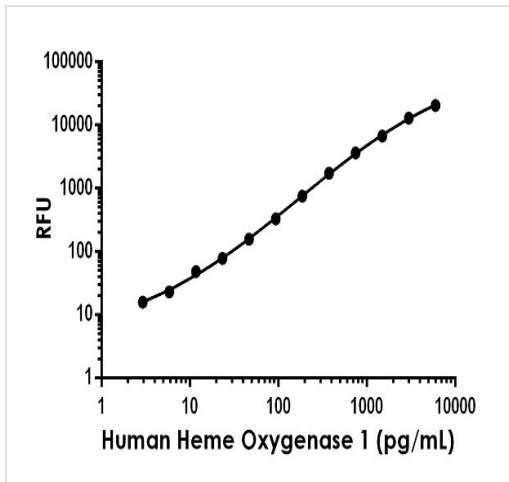
Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BR	1 x 6ml
Human Heme Oxygenase 1 Capture Antibody (lyophilized)	1 vial
Human Heme Oxygenase 1 Detector Antibody (lyophilized)	1 vial
Human Heme Oxygenase 1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated Black 96-Well Microplate	1 unit
Stoplight Red Substrate Buffer	1 x 12ml

Function	Heme oxygenase cleaves the heme ring at the alpha methene bridge to form biliverdin. Biliverdin is subsequently converted to bilirubin by biliverdin reductase. Under physiological conditions, the activity of heme oxygenase is highest in the spleen, where senescent erythrocytes are sequestered and destroyed.
Sequence similarities	Belongs to the heme oxygenase family.
Cellular localization	Microsome. Endoplasmic reticulum.

Images

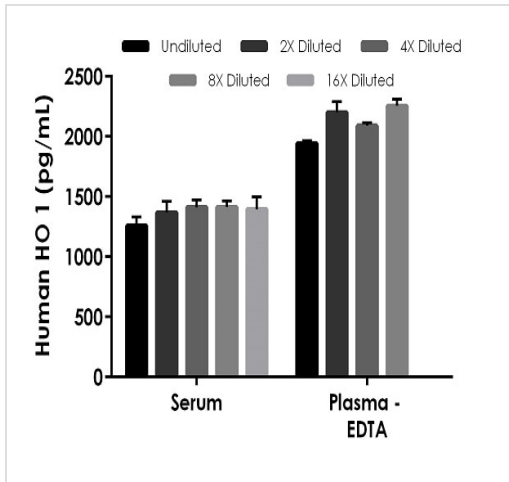


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



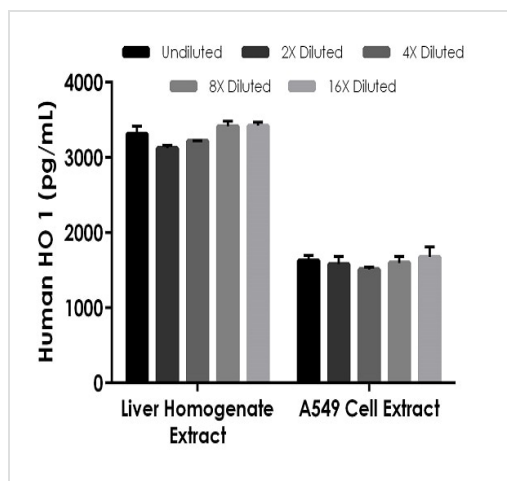
Background-subtracted data values (mean +/- SD) are graphed.

Example of human Heme Oxygenase 1 (HO 1) standard curve in Sample Diluent NS.



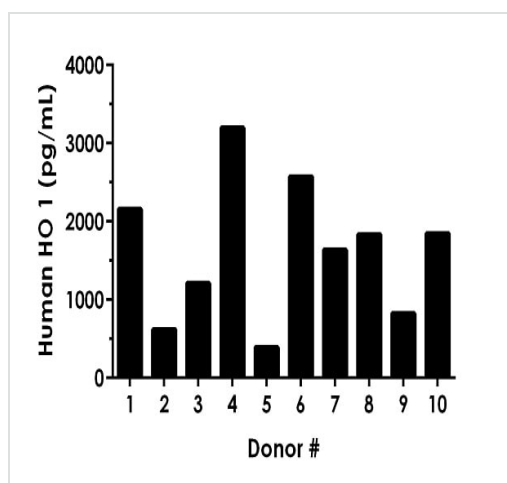
The concentrations of Heme Oxygenase 1 were measured in duplicate, interpolated from the Heme Oxygenase 1 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (EDTA) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Heme Oxygenase 1 concentration was determined to be 1.37 ng/mL in serum and 2.12 ng/mL in plasma (EDTA).

Interpolated concentrations of native Heme Oxygenase 1 in human serum and plasma (EDTA) samples.



Interpolated concentrations of native Heme Oxygenase.

Interpolated concentrations of native Heme Oxygenase 1 in human liver homogenate extract and A549 cell extract based on a 15.6 µg/mL liver homogenate extract and 5 µg/mL A549 cell extract load. The concentrations of Heme Oxygenase 1 were measured in duplicate and interpolated from the Heme Oxygenase 1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean Heme Oxygenase 1 concentration was determined to be 3.30 ng/mL in liver homogenate extract and 1.60 ng/mL in A549 cell extract.



Serum from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean Heme Oxygenase 1 concentration was determined to be 1,630 pg/mL with a range of 391 – 3,198 pg/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 Heme Oxygenase 1
ELISA Kit, Fluorescent (ab229429)

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.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