

## Mouse Heme Oxygenase 1 ELISA Kit ab204524

**重组** SimpleStep ELISA

[14 References](#) [13 图像](#)

### 概述

**产品名称** 小鼠Heme Oxygenase 1 ELISA试剂盒

**检测方法** Colorimetric

**精确度** 批次内

样品	n	Mean	SD	CV%
Overall	5			2.4%

批次间

样品	n	Mean	SD	CV%
Overall	3			2.6%

**样品类型** Cell culture supernatant, Urine, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

**检测类型** Sandwich (quantitative)

**灵敏度** 10 pg/ml

**范围** 78.1 pg/ml - 5000 pg/ml

**回收率** 特定样本回收率

样品类型	平均%	范围
Urine	105	102% - 111%
Serum	96	94% - 98%
Tissue Extracts	110	104% - 113%
Cell culture media	112	108% - 119%
Hep Plasma	88	86% - 91%
EDTA Plasma	89	87% - 91%

样品类型	平均%	范围
Cit plasma	95	87% - 108%

检测时间

1h 30m

实验步骤

One step assay

种属反应性

与反应: Mouse

不与反应: Cow, Pig

产品概述

Mouse Heme Oxygenase 1 ELISA Kit (ab204524) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Heme Oxygenase 1 protein in cell culture extracts, cell culture supernatant, serum, tissue extracts, urine, cit plasma, edta plasma, and hep plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Heme Oxygenase 1 with 10 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.

### ASSAY SPECIFICITY

This kit recognizes both native and recombinant mouse Heme Oxygenase 1 protein in serum, plasma, urine, cell culture supernatant, cell and tissue extract samples only.

### SPECIES REACTIVITY

This kit recognizes mouse Heme Oxygenase 1 protein.

Other species reactivity was determined by measuring 4-fold diluted serum samples of various species, interpolating the protein concentrations from the mouse standard curve, and expressing the interpolated concentrations as a percentage of the protein concentration in mouse serum assayed at the same dilution.

Reactivity < 3% was determined for the following species: Human, Guinea Pig, Rabbit, Dog, Pig, Cow

说明

Heme oxygenase 1 (HO 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 47% amino acid sequence identity: inducible heme oxygenase 1 and constitutively expressed heme oxygenase 2.

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.

#### 平台

Microplate (12 x 8 well strips)

#### 性能

#### 存放说明

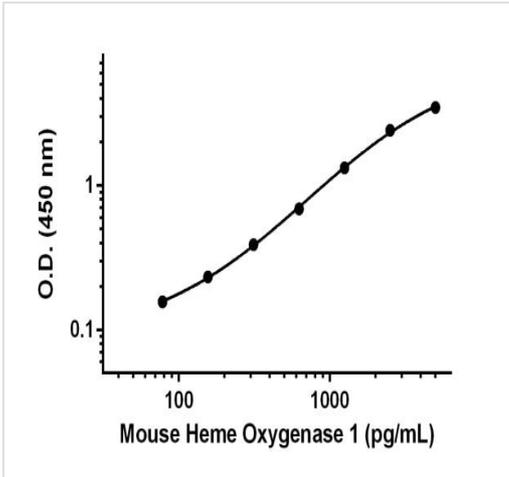
Store at +4°C. Please refer to protocols.

组件	1 x 96 tests
10X Mouse HO 1 Capture Antibody	1 x 600µl
10X Mouse HO 1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BI	1 x 6ml
Mouse HO 1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

#### 相关性

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. Exhibits cytoprotective effects since excess of free heme sensitizes cells to undergo apoptosis. Tissue specificity: Expressed at higher levels in renal cancer tissue than in normal tissue (at protein level). Disease: Heme oxygenase 1 deficiency. Similarity: Belongs to the heme oxygenase family.

#### 图片



Example of Heme Oxygenase 1 standard curve diluted in Sample Diluent NS.

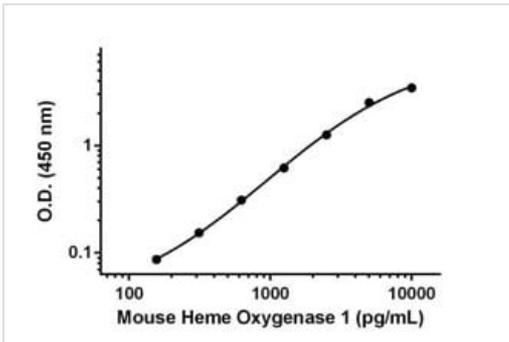
Background-subtracted data values (mean +/- SD) are graphed.

Standard Curve Measurements			
Conc. (pg/mL)	O.D. 450 nm		Mean O.D.
	1	2	
0	0.068	0.065	0.066
78.1	0.159	0.153	0.156
156.3	0.237	0.229	0.233
312.5	0.398	0.382	0.390
625.0	0.687	0.688	0.687
1,250	1.334	1.311	1.322
2,500	2.378	2.433	2.406
5,000	3.485	3.435	3.460

Standard curve

Example of Heme Oxygenase 1 standard curve diluted in Sample Diluent NS. The Heme Oxygenase 1 standard curve was prepared as described. Raw data values are shown in the table.

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



Standard curve

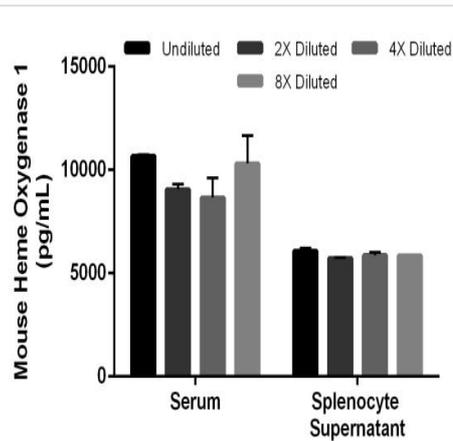
Example of Heme Oxygenase 1 standard curve diluted in 1X Cell Extraction Buffer PTR.

The Heme Oxygenase 1 standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Standard Curve Measurements			
Conc. (pg/mL)	O.D. 450 nm		Mean O.D.
	1	2	
0	0.065	0.064	0.065
156.3	0.151	0.152	0.152
312.5	0.222	0.216	0.219
625	0.378	0.372	0.375
1,250	0.683	0.685	0.684
2,500	1.306	1.334	1.320
5,000	2.580	2.576	2.578
10,000	3.497	3.507	3.502

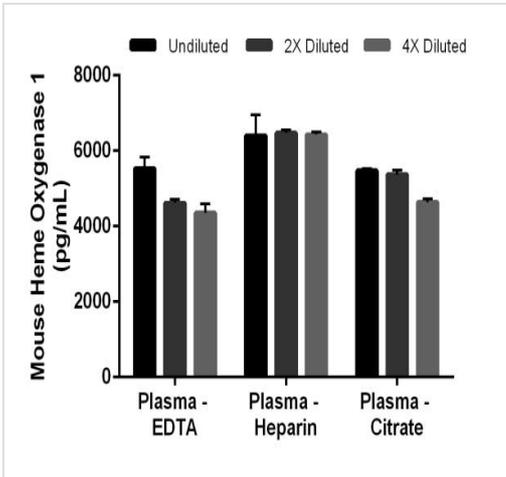
Standard curve

Example of Heme Oxygenase 1 standard curve diluted in 1X Cell Extraction Buffer PTR. The Heme Oxygenase 1 standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of Heme Oxygenase 1 in mouse serum, and splenocyte supernatant.

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 +/- SD, n=2). The mean Heme Oxygenase 1 concentration was determined to be 10,670 pg/mL in mouse serum and 6,084 pg/mL in mouse splenocyte supernatant.



Interpolated concentrations of Heme Oxygenase 1 in mouse plasma (EDTA), plasma (heparin) and plasma (citrate).

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 +/- SD, n=2). The mean Heme Oxygenase 1 concentration was determined to be 5,536 pg/mL in mouse plasma (EDTA), 6,400 pg/mL in mouse plasma (heparin), and 5,479 pg/mL in mouse plasma (Citrate).

Dilution Factor	Interpolated value	100% Human Serum	100% Human Plasma (Citrate)	100% Human Plasma (EDTA)	100% Human Plasma (Heparin)	25% Media*
Undiluted	pg/mL	1,621	1,629	1,559	1,439	1,510
	% Expected value	100	100	100	100	100
2	pg/mL	834.5	851.5	755.6	852.0	673.0
	% Expected value	103	105	97	118	89
4	pg/mL	411.2	425.1	397.7	426.2	326.6
	% Expected value	101	104	102	118	87
8	pg/mL	210.3	216.1	229.1	214.7	159.2
	% Expected value	104	106	118	119	84
16	pg/mL	98.42	111.8	111.2	NL	77.08
	% Expected value	97	110	114	NL	82

NL - not linear

\*Media is RPMI1640 containing 10% fetal bovine serum.

Linearity of dilution.

Linearity of dilution is determined based on interpolated values from the standard curve. Linearity of dilution defines a sample concentration interval in which interpolated target concentrations are directly proportional to sample dilution.

Recombinant Cardiac Troponin 1 was spiked into the following biological samples and diluted in a 2-fold dilution series in Sample Diluent 50BP for serum and plasma samples and Sample Diluent NS for cell culture media samples.

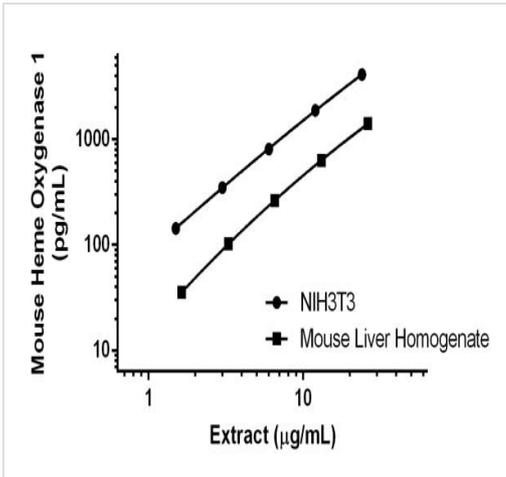
Neat pooled serum and plasma (EDTA, Heparin, Citrate) samples from healthy donors was measured in duplicate. All values were below the detectable range of the assay.

Dilution Factor	Interpolated value	10 µg/mL Human Heart Tissue Extract
Undiluted	pg/mL	1,849
	% Expected value	100
2	pg/mL	899.0
	% Expected value	97
4	pg/mL	456.4
	% Expected value	99
8	pg/mL	221.9
	% Expected value	96
16	pg/mL	107.4
	% Expected value	93

Linearity of dilution.

Neat serum from ten individual healthy human female donors was measured in duplicate. All values were below the detectable range of the assay.

Native Cardiac Troponin 1 was measured in the following biological samples in a 2-fold dilution series. Sample dilutions are made in 1X Cell Extraction Buffer PTR.



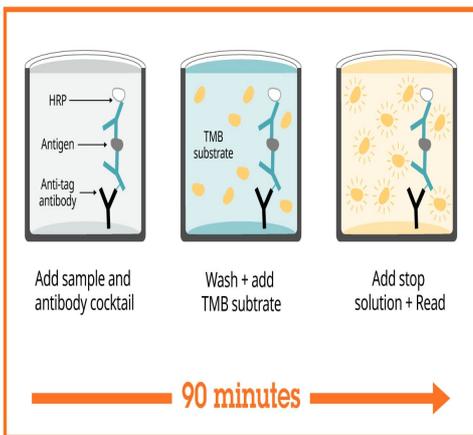
Quantitation of Heme Oxygenase 1 expression in different cell extracts.

Interpolated values of Heme Oxygenase 1 are plotted for the indicated cell extracts (y-axis) against the total extract load (x-axis).

Sample Diluent Buffer	n=	Minimal Detectable Dose
Sample Diluent NS	13	10 pg/mL
1X Cell Extraction Buffer PTR	16	17 pg/mL

Sensitivity

Example of Heme Oxygenase 1 standard curve diluted in 1X Cell Extraction Buffer PTR. The Heme Oxygenase 1 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.



Sandwich ELISA - Mouse Heme Oxygenase 1 ELISA Kit (ab204524)

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.

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Sandwich ELISA - Mouse Heme Oxygenase 1  
ELISA Kit (ab204524)

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Sandwich ELISA - Mouse Heme Oxygenase 1  
ELISA Kit (ab204524)

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

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