# abcam

### Product datasheet

## Mouse HGF ELISA Kit ab223862

重组 SimpleStep ELISA

2 References 10 图像

概述

产品名称

小鼠HGF ELISA试剂盒

检测方法

Colorimetric

精确度

批次内

样品	n	Mean	SD	CV%
Serum	5			3.2%

批次间

样品	n	Mean	SD	CV%
Serum	3			4.9%

样品类型

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

检测类型

Sandwich (quantitative)

灵敏度

8.4 pg/ml

范围

62.5 pg/ml - 4000 pg/ml

回收率

特定样本回收率

样品类型	平均%	范围
Serum	111	109% - 117%
Cell culture extracts	104	101% - 107%
Tissue Extracts	119	113% - 123%
Cell culture media	109	107% - 112%
EDTA Plasma	104	100% - 108%
Cit plasma	108	105% - 111%

**检测时间** 1h 30m

实验步骤 One step assay

种属反应性

与反应: Mouse

产品概述

Mouse HGF ELISA Kit (ab223862) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of HGF protein in cell culture extracts, cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse HGF with 8.4 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Hepatocyte Growth Factor (HGF) is mitogen of parenchymal hepatocytes. HGF also acts as a growth factor and is expressed by a wide variety of tissue and cell types. HGF binds to the HGF-Receptor to help regulate cell growth, cell motility and morphogenesis. Elevated circulating levels of HGF can be measured as prognostic marker of severity of hypertension and heart failure. HGF is secreted as a full length inactive polypeptide, and then is cleaved by serine proteases into a 69-kDa alpha-chain and 34-kDa beta chain which dimerize producing the active heterodimeric molecule. Mouse HGF SimpleStep ELISA® (ab223862) is designed to recognize this dimerized protein.

The standard is affinity purified.

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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.

Microplate (12 x 8 well strips)

平台

说明

#### 性能

#### 存放说明

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

组 <b>件</b>	1 x 96 tests
10X Mouse HGF Capture Antibody	1 x 600µl
10X Mouse HGF Detector Antibody	1 x 600µl

组 <b>件</b>	1 x 96 tests
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 CPR	1 x 6ml
Mouse HGF 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

功能

Potent mitogen for mature parenchymal hepatocyte cells, seems to be a hepatotrophic factor, and acts as a growth factor for a broad spectrum of tissues and cell types. Activating ligand for the receptor tyrosine kinase MET by binding to it and promoting its dimerization.

疾病相关

Deafness, autosomal recessive, 39

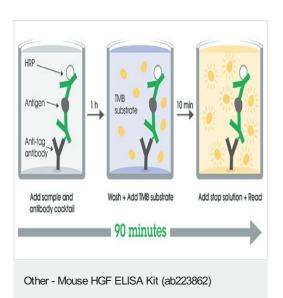
序列相似性

Belongs to the peptidase S1 family. Plasminogen subfamily.

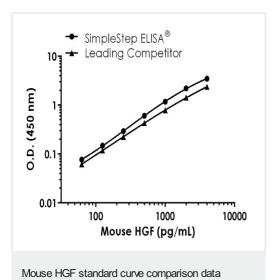
Contains 4 kringle domains.
Contains 1 PAN domain.

Contains 1 peptidase S1 domain.

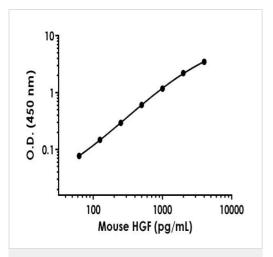
#### 图片



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.

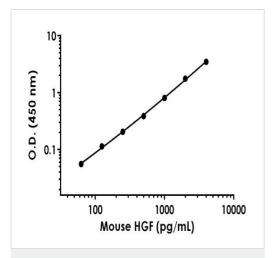


Standard curve comparison between mouse HGF SimpleStep  ${\sf ELISA}^{\circledR} \ kit \ and \ traditional \ {\sf ELISA} \ kit \ from \ leading \ competitor.$  SimpleStep ELISA kit shows comparable sensitivity.



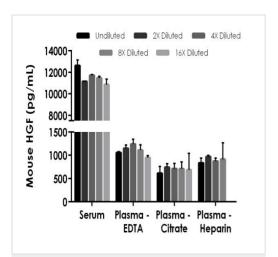
Background-subtracted data values (mean +/- SD) are graphed.





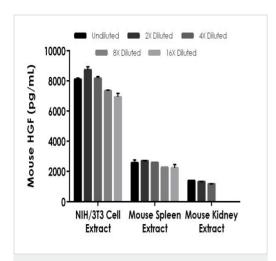
Background-subtracted data values (mean +/- SD) are graphed.

Example of mouse HGF standard curve in 1X Cell Extraction Buffer PTR



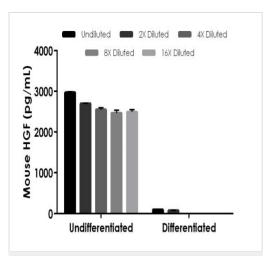
Interpolated concentrations of native HGF in mouse serum and plasma samples

The concentrations of HGF were measured in duplicates, interpolated from the HGF standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 20%, plasma (EDTA) 50%, plasma (citrate) 50%, and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean HGF concentration was determined to be 11,764 pg/mL in serum, 1099 pg/mL in plasma (EDTA), 691 pg/mL in plasma (citrate) and 896 pg/mL in plasma heparin).

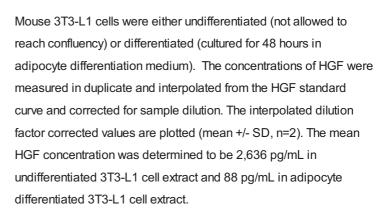


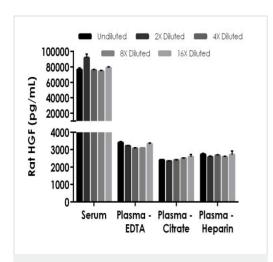
Interpolated concentrations of native HGF in mouse cell and tissue extracts, extracts based on a 4,000  $\,$  µg/mL extract load

The concentrations of HGF were measured in duplicate and interpolated from the HGF standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean HGF concentration was determined to be 7,859 pg/mL in NIH/3T3 cell extract, 2,472 pg/mL in mouse spleen tissue extract and 1,291 pg/mL in mouse kidney tissue extract.

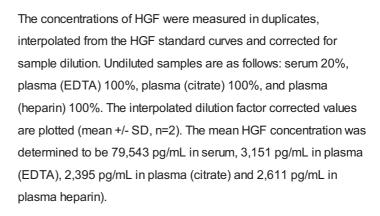


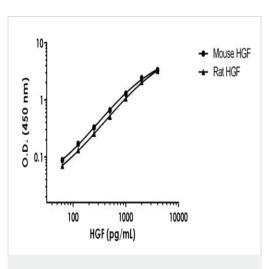
Interpolated concentrations of native HGF in mouse 3T3-L1 undifferentiated and 3T3-L1 adipocyte differentiated cell extract samples, sample based on a 1,000 µg/mL extract load





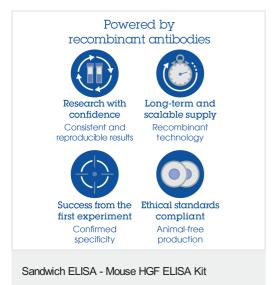
Interpolated concentrations of native HGF in rat serum and plasma samples





Recombinant rat and mouse HGF standard curves

Recombinant rat HGF was prepared at 4 ng/mL and diluted with a 2-fold titration alongside of mouse HGF standard curve, and assayed for cross reactivity. 100% cross-reactivity was observed.



To learn more about the advantages of recombinant antibodies see **here**.

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