

### Mouse Leptin ELISA Kit ab199082

SimpleStep ELISA

[8 References](#) [5 Images](#)

#### Overview

**Product name** Mouse Leptin ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			5.9%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			11.5%

**Sample type** Cell culture supernatant, Urine, Serum, Cit plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 33.6 pg/ml

**Range** 93.75 pg/ml - 6000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Urine	80	77% - 82%
Serum	111	110% - 114%
Cell culture media	108	107% - 108%
Hep Plasma	106	94% - 116%
Cit plasma	104	100% - 111%
serum free media	104	103% - 105%

<b>Assay time</b>	1h 30m
<b>Assay duration</b>	One step assay
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse <b>Does not react with:</b> Goat, Cow, Pig
<b>Product overview</b>	Mouse Leptin ELISA Kit (ab199082) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Leptin protein in cell culture supernatant, cit plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Leptin with 33.6 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** Leptin is a secreted protein factor produced by adipocytes. It regulates energy balance and body fat deposits. Leptin deficiency in humans and mice can cause obesity. Circulating levels of Leptin are regulated by food intake, insulin levels and pregnancy status. Mouse leptin has 96% and 85% protein sequence identity to rat and human leptin, respectively.

**Platform** 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 Leptin Capture Antibody	1 x 600µl	1 x 600µl
10X Mouse Leptin Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
Antibody Diluent CPI2	1 x 6ml	1 x 6ml
Mouse Leptin Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml

Components	1 x 96 tests	1 x 96 tests
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**

May function as part of a signaling pathway that acts to regulate the size of the body fat depot. An increase in the level of LEP may act directly or indirectly on the CNS to inhibit food intake and/or regulate energy expenditure as part of a homeostatic mechanism to maintain constancy of the adipose mass.

**Involvement in disease**

Defects in LEP may be a cause of obesity (OBESITY) [MIM:601665]. It is a condition characterized by an increase of body weight beyond the limitation of skeletal and physical requirements, as the result of excessive accumulation of body fat.

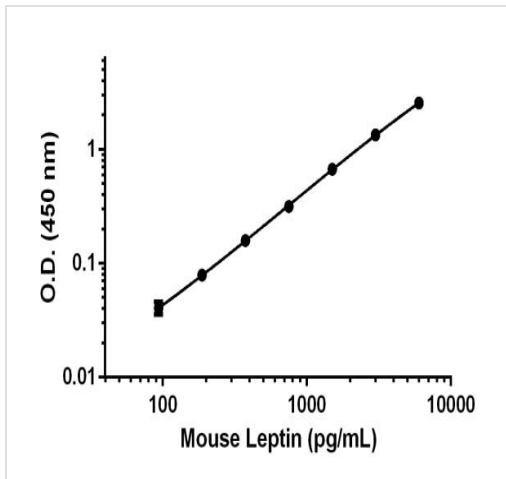
**Sequence similarities**

Belongs to the leptin family.

**Cellular localization**

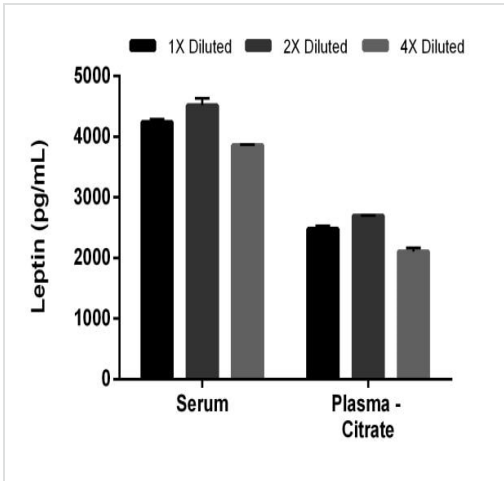
Secreted.

**Images**



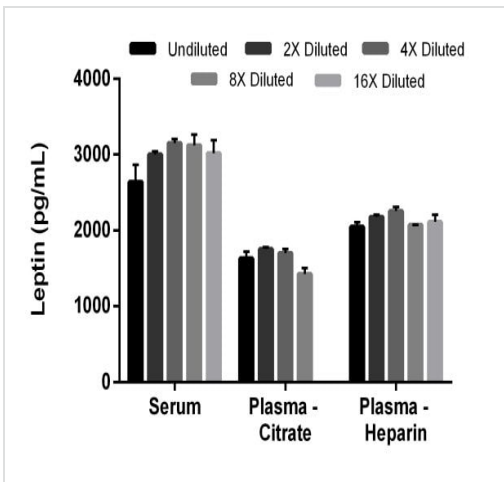
Background-subtracted data values (mean +/- SD) are graphed.

Example of Leptin standard curve.



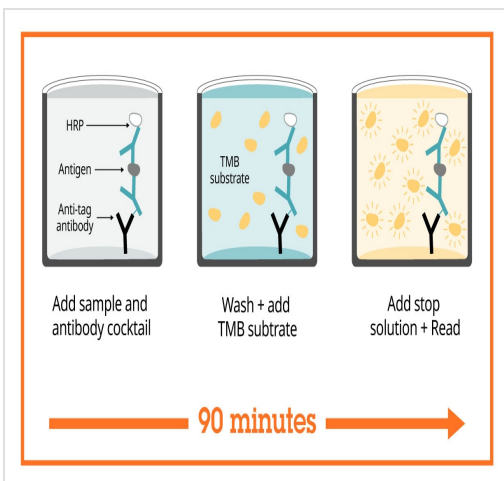
Interpolated concentrations of Leptin in mouse serum and plasma (citrate).

The concentrations of Leptin were measured in duplicate and interpolated from the Leptin standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Leptin concentration was determined to be 4514.3 pg/mL in mouse serum and 2698.1 pg/mL in mouse plasma (Citrate).



Interpolated concentrations of Leptin in rat serum, plasma (citrate), and plasma (heparin).

The concentrations of Leptin were measured in duplicate and interpolated from the Leptin standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Leptin concentration was determined to be 2983 pg/mL in rat serum, 1626 pg/mL in rat plasma (citrate) and 2134 pg/mL in rat plasma (heparin).



Sandwich ELISA - Mouse Leptin ELISA Kit (ab199082)

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.

### 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 Leptin ELISA Kit  
(ab199082)

To learn more about the advantages of SimpleStep ELISA<sup>®</sup> 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