

## Product datasheet

### Mouse M-CSF ELISA Kit ab199084

Recombinant SimpleStep ELISA

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

#### Overview

**Product name** Mouse M-CSF ELISA Kit

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
Plasma	8			4.35%

Inter-assay

Sample	n	Mean	SD	CV%
Plasma	3			6.28%

**Sample type**

Cell culture supernatant, Serum, Cell culture extracts, Cit plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

3.7 pg/ml

**Range**

46.9 pg/ml - 3000 pg/ml

#### Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	97	92% - 105%
Cell culture media	86	83% - 90%
Cit plasma	110	107% - 112%

**Assay time**

1h 30m

**Assay duration**

One step assay

**Species reactivity**

**Reacts with:** Mouse

**Does not react with:** Goat, Cow

#### Product overview

Mouse M-CSF ELISA Kit (ab199084) is a single-wash 90 min sandwich ELISA designed for the

quantitative measurement of M-CSF protein in cell culture supernatant, serum, cit plasma, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse M-CSF with 3.7 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

M-CSF is a secreted cytokine that plays an essential role in the regulation of differentiation and maintenance of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. It plays an important role in innate immunity and in inflammatory processes where it acts to promote the release of proinflammatory chemokines. M-CSF also plays an important role in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone development. Reports show that it is required for normal male and female fertility. It also acts in reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration.

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.

## Platform

Microplate (12 x 8 well strips)

## Properties

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

Components	1 x 96 tests
10X Mouse M-CSF 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 4BI	1 x 6ml

Components	1 x 96 tests
Mouse M-CSF Capture Antibody (lyophilized)	2 vials
Mouse M-CSF 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

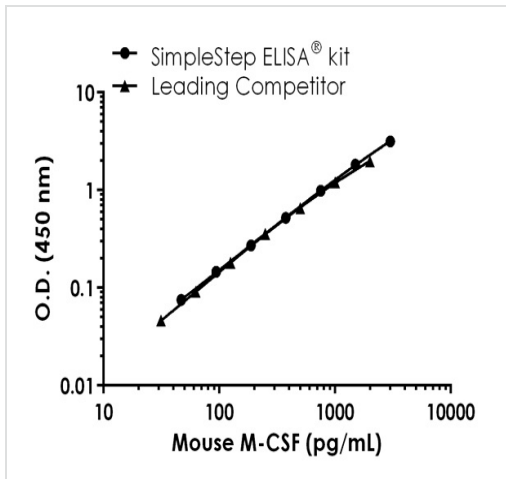
**Relevance**

Cytokine that plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. Promotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and in inflammatory processes. Plays an important role in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone development. Required for normal male and female fertility. Promotes reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration. Plays a role in lipoprotein clearance.

**Cellular localization**

Cell membrane; Single-pass membrane protein

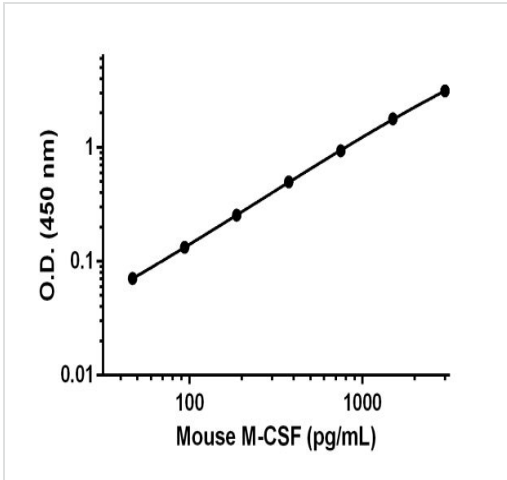
**Images**



Standard curve comparison between mouse M-CSF SimpleStep ELISA<sup>®</sup> kit and traditional ELISA kit from leading competitor.

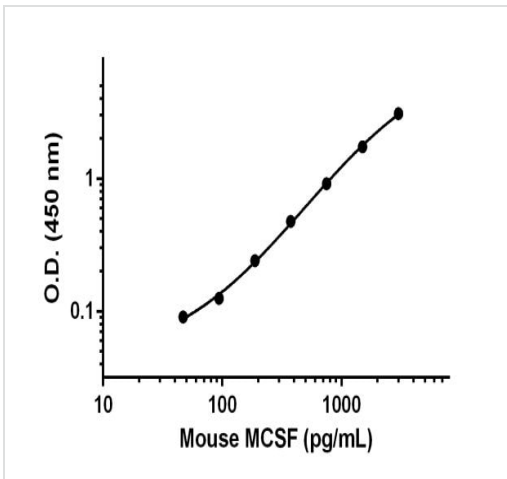
SimpleStep ELISA kit shows comparable sensitivity.

Mouse M-CSF standard curve comparison data.



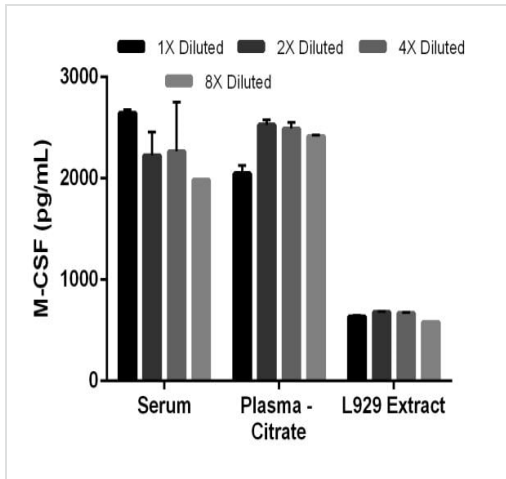
Background-subtracted data values (mean +/- SD) are graphed.

Example of M-CSF standard curve in Sample Diluent NS.



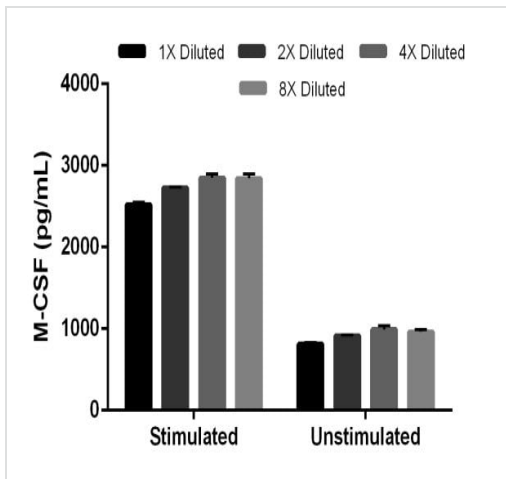
Background-subtracted data values (mean +/- SD) are graphed.

Example of M-CSF standard curve in 1X Cell Extraction Buffer PTR.



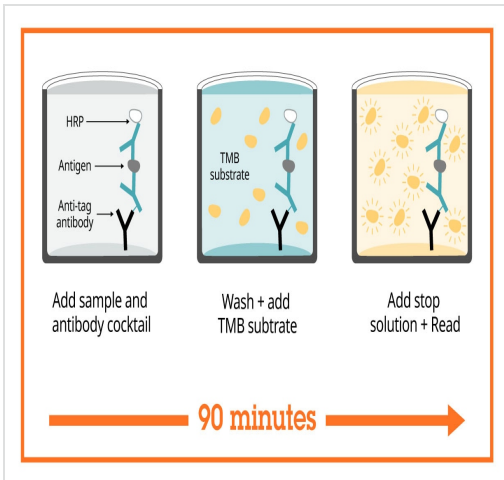
Linearity of dilution of the assay.

Titration of mouse serum, plasma (citrate) and stimulated L929 cell extracts. The 1X dilution for mouse serum was 6.25% matrix, and the 1X dilution for plasma was 50.0% matrix. The 1X dilution for the L929 extract was 500 µg/mL. The interpolated M-CSF concentrations multiplied by the total dilution factor are shown for each matrix (mean +/- SD, n = 2).



Titration of Stimulated L929 supernatant and Unstimulated L929 supernatant within the working range of the assay.





The 1X dilution for stimulated L929 supernatant was 12.5% matrix, and the 1X dilution for unstimulated L929 supernatant was 25.0% matrix. The interpolated M-CSF concentrations multiplied by the total dilution factor are shown for each matrix (mean +/- SD, n = 2).



Sandwich ELISA - Mouse M-CSF ELISA Kit  
(ab199084)

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.

Powered by recombinant antibodies

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

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To learn more about the advantages of recombinant antibodies see [here](#).

**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 M-CSF ELISA Kit  
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To learn more about the advantages of SimpleStep ELISA® kits  
see [here](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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