

## Recombinant SimpleStep ELISA®

★★★★★ **3 Abreviews**   **1 References**   6 Images

<b>Product name</b>	Mouse TIMP1 ELISA Kit
---------------------	-----------------------

Detection method	Colorimetric
------------------	--------------

## Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			3%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			6.7%

<b>Sample type</b>	Cell culture supernatant, Serum, Plasma, Cell culture extracts
--------------------	--

<b>Assay type</b>	Sandwich (quantitative)
-------------------	-------------------------

**Sensitivity** 6.2 pg/ml

**Range** 15.6 pg/ml - 1000 pg/ml

## Recovery

### Sample specific recovery

Sample type	Average %	Range
Serum	111	110% - 113%
Cell culture extracts	104	90% - 119%
Cell culture media	107	106% - 108%
Cit plasma	112	109% - 113%

<b>Assay time</b>	1h 30m
-------------------	--------

<b>Assay duration</b>	One step assay
-----------------------	----------------

**Species reactivity** **Reacts with:** Mouse

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

## Product overview

Mouse TIMP1 ELISA Kit (ab196265) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of TIMP1 protein in cell culture supernatant, serum, plasma, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse TIMP1 with 6.2 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

Tissue metalloproteinase inhibitor 1 (TIMP1 or Metalloproteinase inhibitor 1) inhibits matrix metalloproteinases (MMP's) which cause degradation of the extracellular matrix. TIMP1 inhibits MMP's by forming a non-covalent bond complex at their catalytic zinc cofactor site and irreversibly inactivating them. TIMP1 also promotes cell proliferation and has some anti-apoptotic functions.

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

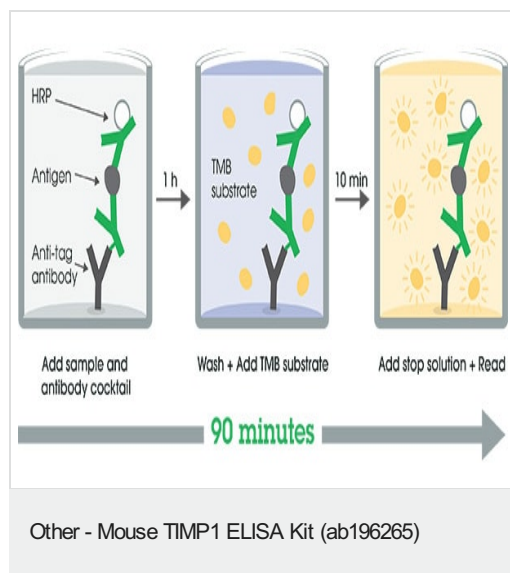
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse TIMP1 Capture Antibody	1 x 600µl
10X Mouse TIMP1 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

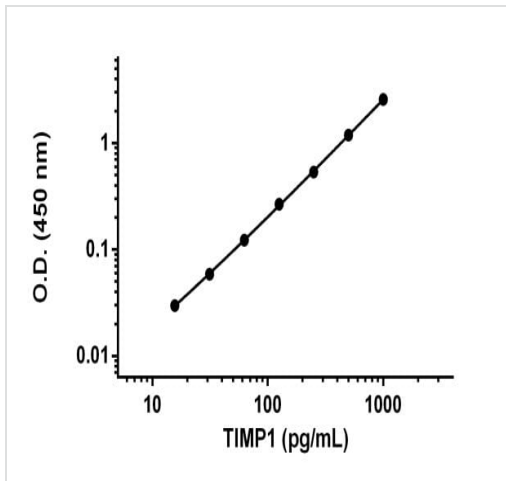
Components	1 x 96 tests
Mouse TIMP1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

<b>Function</b>	Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. Also mediates erythropoiesis in vitro; but, unlike IL-3, it is species-specific, stimulating the growth and differentiation of only human and murine erythroid progenitors. Known to act on MMP-1, MMP-2, MMP-3, MMP-7, MMP-8, MMP-9, MMP-10, MMP-11, MMP-12, MMP-13 and MMP-16. Does not act on MMP-14.
<b>Sequence similarities</b>	Belongs to the protease inhibitor I35 (TIMP) family. Contains 1 NTR domain.
<b>Post-translational modifications</b>	The activity of TIMP1 is dependent on the presence of disulfide bonds.
<b>Cellular localization</b>	Secreted.

## Images

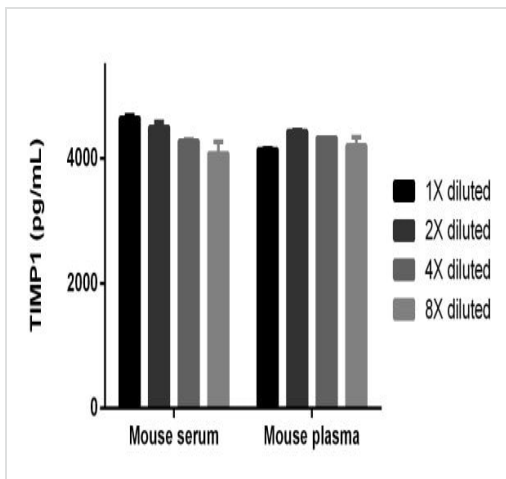


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



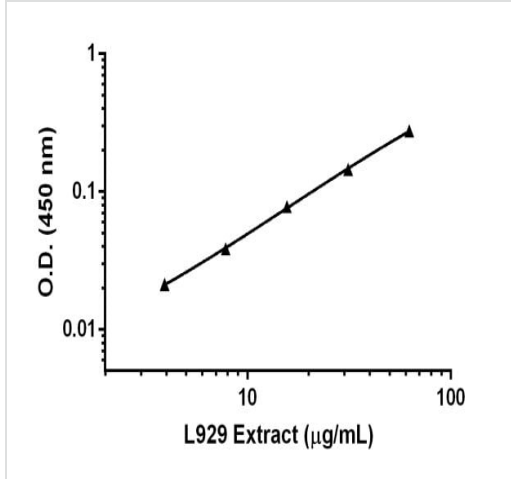
Background-subtracted data values (mean  $\pm$  SD) are graphed.

Example of TIMP1 standard curve prepared in Sample Diluent NS.



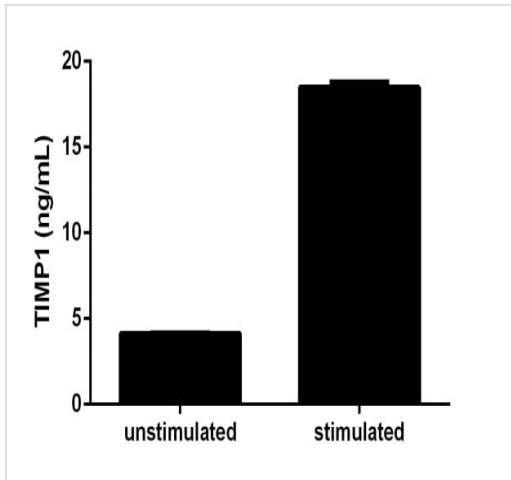
The concentrations of TIMP1 were measured in duplicate and interpolated from the TIMP1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean TIMP1 concentration was determined to be 4,495 pg/mL in Mouse serum and 4,210 pg/mL in Mouse plasma.

Interpolated concentrations of TIMP1 in Mouse serum and plasma (citrate).



Titration of L929 Extract diluted 62.5 μg/mL to 4 μg/mL in Sample Diluent NS.

Background subtracted data values (mean  $\pm$  SD, n = 2) are graphed.



Comparison of secreted TIMP1 in unstimulated and PMA/PHA-stimulated L929 Cells.

L929 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. TIMP1 was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated L929 and cell culture media. Measured values were interpolated from the TIMP1 Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values  $\pm$  SD are graphed: 4.1 ng/mL unstimulated, 18.5 ng/mL stimulated. There was no detectable signal in media.

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 - Mouse TIMP1 ELISA Kit  
(ab196265)

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