

## Product datasheet

# Human Oncostatin M/OSM ELISA Kit ab215543

Recombinant SimpleStep ELISA

[7 Images](#)

### Overview

**Product name** Human Oncostatin M/OSM ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Overall	5			8%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			7%

**Sample type**

Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

2.1 pg/ml

**Range**

15.625 pg/ml - 1000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Serum	93	86% - 97%
Cell culture media	102	88% - 114%
Hep Plasma	95	89% - 98%
EDTA Plasma	85	82% - 90%
Cit plasma	80	78% - 81%

**Assay time**

1h 30m

**Assay duration**

One step assay

**Species reactivity****Reacts with:** Human**Product overview**

Human Oncostatin M/OSM ELISA Kit (ab215543) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Oncostatin M/OSM protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Oncostatin M/OSM with 2.1 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**

Oncostatin M is a 28-kDa pleiotropic cytokine of the IL-6 family that is a product of activated T lymphocytes, monocytes, neutrophils, and some tumor cells including breast cancer epithelial cells. Oncostatin M participates in a number of developmental, skeletal and immunological processes. Oncostatin M inhibits the proliferation of a number of tumor cell lines. It stimulates proliferation of AIDS-KS cells. Oncostatin M regulates cytokine production, including IL-6, G-CSF and GM-CSF from endothelial cells. It uses both type I OSM receptor (heterodimers composed of LIPR and IL6ST) and type II OSM receptor (heterodimers composed of OSMR and IL6ST). Oncostatin M is involved in the maturation of fetal hepatocytes, thereby promoting liver development and regeneration.

**Platform**

Pre-coated microplate (12 x 8 well strips)

**Properties****Storage instructions**

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

Components	1 x 96 tests
10X Human Oncostatin M Capture Antibody	1 x 600µl
10X Human Oncostatin M Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BI	1 x 6ml
Human Oncostatin M Lyophilized Recombinant Protein	2 vials

Components	1 x 96 tests
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

**Function**

Growth regulator. Inhibits the proliferation of a number of tumor cell lines. Stimulates proliferation of AIDS-KS cells. It regulates cytokine production, including IL-6, G-CSF and GM-CSF from endothelial cells. Uses both type I OSM receptor (heterodimers composed of LIPR and IL6ST) and type II OSM receptor (heterodimers composed of OSMR and IL6ST).

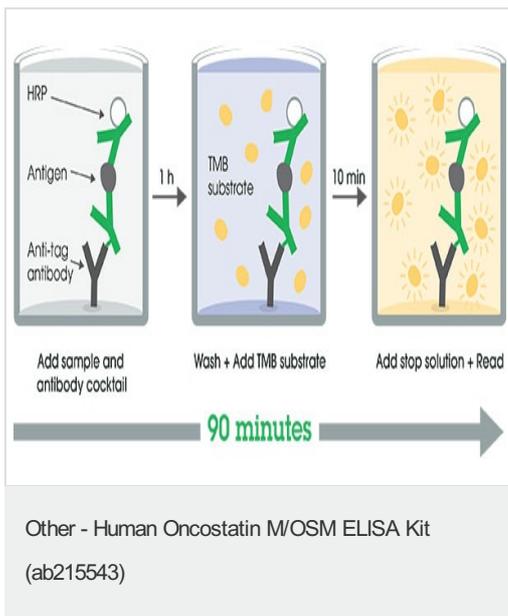
**Sequence similarities**

Belongs to the LIF/OSM family.

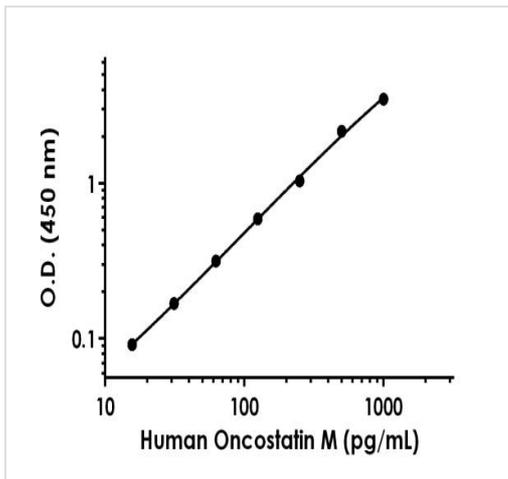
**Cellular localization**

Secreted.

**Images**

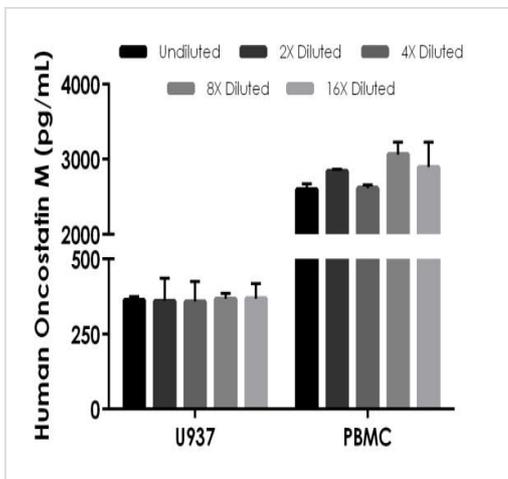


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



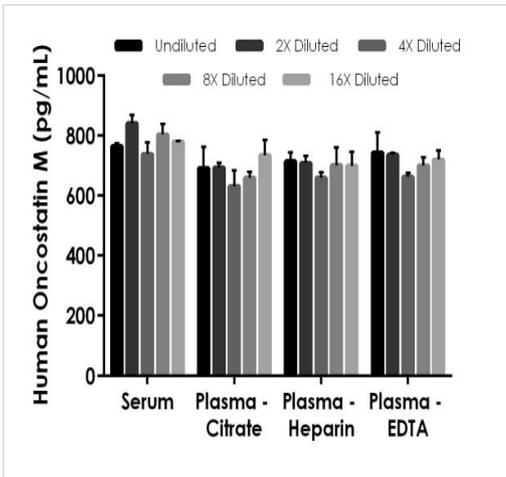
Example of human Oncostatin M standard curve.

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



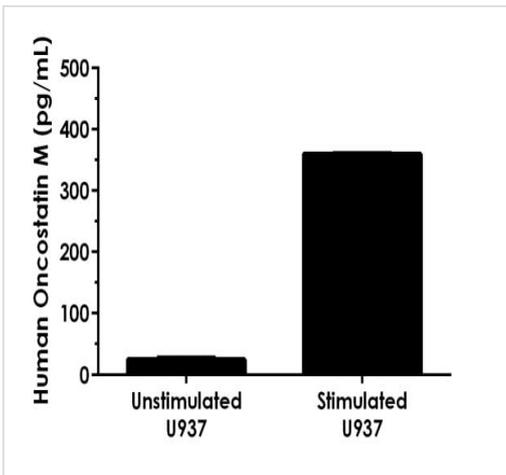
Interpolated concentrations of native Oncostatin M in human cell culture supernatant samples.

The concentrations of Oncostatin M were measured in duplicates, interpolated from the Oncostatin M standard curves and corrected for sample dilution. Undiluted samples are as follows: stimulated U937 supernatant 50% and stimulated PBMC supernatant 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean (target) concentration was determined to be 362.5 pg/mL in neat stimulated U937 supernatant and 2800 pg/mL in neat stimulated PBMC supernatant.



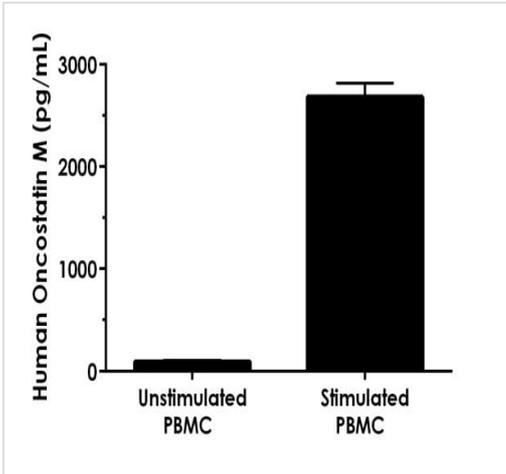
Interpolated concentrations of spike Oncostatin M in human serum and plasma samples.

The concentrations of Oncostatin M were measured in duplicates, interpolated from the Oncostatin M standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (citrate) 100%, plasma (heparin) 100% and plasma (EDTA) 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Comparison of Oncostatin M in unstimulated and TPA stimulated human U937 cell supernatants.

U937 cells were cultured in the absence or presence of 10 ng/mL TPA for 72 hours. The concentrations of Oncostatin M were measured in 50% supernatant samples in duplicates and interpolated from the IL-4 standard curve. The interpolated values are plotted (mean +/- SD, n=2). The mean Oncostatin M concentration was determined to be 363 pg/mL in neat TPA stimulated U937 cell supernatant, 24.9 pg/mL in neat unstimulated supernatants and undetectable in media (not shown).



Comparison of Oncostatin M in unstimulated and PHA-M stimulated human PBMC cell supernatants.

Human PBMC cells were cultured in the absence or presence of 1.5% PHA-M for 46 hours. The concentrations of Oncostatin M were measured in 25% supernatant samples in duplicates and interpolated from the Oncostatin M standard curve. The interpolated values are plotted (mean +/- SD, n=2). The mean Oncostatin M concentration was determined to be 2800 pg/mL in neat PHA-M stimulated PBMC cell supernatant, 96 pg/mL in neat unstimulated supernatants and undetectable in media (not shown).

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 <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>

Sandwich ELISA - Human Oncostatin M/OSM  
ELISA Kit (ab215543)

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"

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