**Human Oncostatin M/OSM ELISA Kit ab215543**

**Overview**

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

**Detection method**  
Colorimetric

**Precision**

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>5</td>
<td></td>
<td></td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>3</td>
<td></td>
<td></td>
<td>7%</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>93</td>
<td>86% - 97%</td>
</tr>
<tr>
<td>Cell culture media</td>
<td>102</td>
<td>88% - 114%</td>
</tr>
<tr>
<td>Hep Plasma</td>
<td>95</td>
<td>89% - 98%</td>
</tr>
<tr>
<td>EDTA Plasma</td>
<td>85</td>
<td>82% - 90%</td>
</tr>
<tr>
<td>Cit plasma</td>
<td>80</td>
<td>78% - 81%</td>
</tr>
</tbody>
</table>

**Assay time**  
1h 30m
Assay duration: One step assay
Species reactivity: Reacts with: Human
Product overview: Oncostatin M/OSM in vitro SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Oncostatin M protein in human serum, plasma, and cell culture supernatant.

The SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.

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.

Tested applications: Suitable for: Sandwich ELISA
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
Plate Seals | 1 unit
Sample Diluent NS (ab193972) | 1 x 50ml
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.

Applications
Our Abpromise guarantee covers the use of ab215543 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

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 +/- SD) are graphed.

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.

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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