

# Human Oncostatin M/OSM Protein

Cat. No. ONM-HM101

## Description

<b>Source</b>	Recombinant Human Oncostatin M/OSM Protein is expressed from HEK293 with His tag at the C-terminus. It contains Ala26-Arg221.
<b>Accession</b>	P13725
<b>Molecular Weight</b>	The protein has a predicted MW of 23.24 kDa. Due to glycosylation, the protein migrates to 30-40 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.1 EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

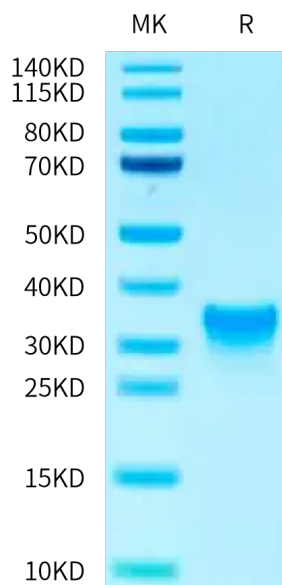
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

OSM is a pleiotropic cytokine that initiates its biological activities by binding to specific cell surface receptors. 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 LIFR and IL6ST) and type II OSM receptor (heterodimers composed of OSMR and IL6ST). Involved in the maturation of fetal hepatocytes, thereby promoting liver development and regeneration.

## Assay Data

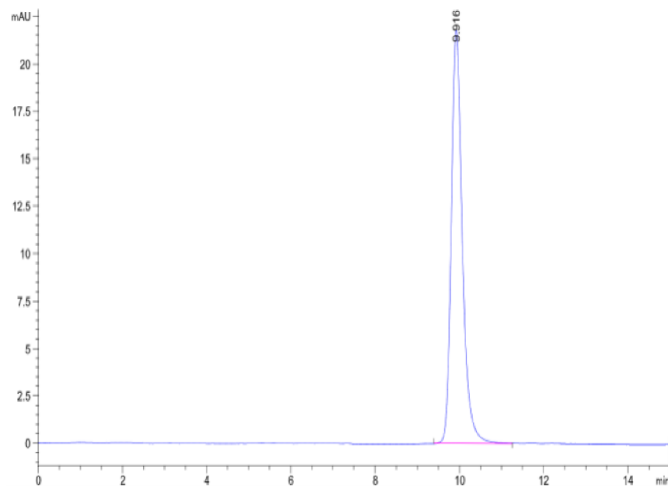
### Bis-Tris PAGE



Human Oncostatin M on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

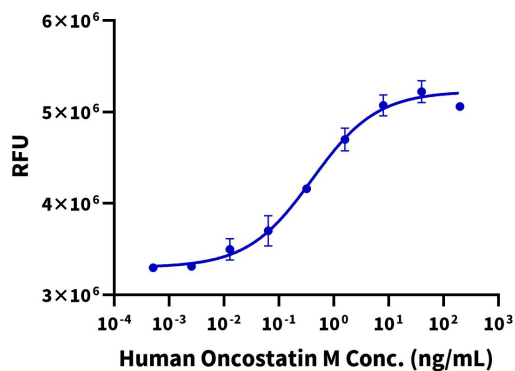
Assay Data



The purity of Human Oncostatin M is greater than 95% as determined by SEC-HPLC.

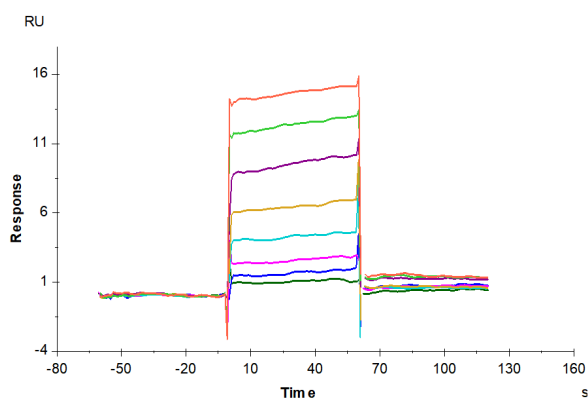
Cell Based Assay

Recombinant Human Oncostatin M Bioactivity



Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 0.3-1 ng/mL (QC Test).

SPR Data



Human LIF R, hFc Tag captured on CM5 Chip via Protein A can bind Human OSM, His Tag with an affinity constant of  $0.884 \mu\text{M}$  as determined in SPR assay (Biacore T200).