

# Active Recombinant Human Oncostatin M

Cat. No. OSM-131H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant Human Oncostatin M was expressed in modified *human 293 cells*.

**Species** Human

**Source** HEK293

### Description

Oncostatin M (OSM) is a member of the IL-6 family of cytokines, which includes IL-6, IL-11, LIF, ciliary neurotrophic factor (CNTF), cardiotrophin-1 (CT-1) and cardiotropin-like cytokine. Structurally, OSM is a 196 amino acid monomeric glycoprotein with two potential N-linked glycosylation sites and five cysteine residues, four of which form disulfide bonds. OSM is a growth regulator, in particular with respect to human fibroblasts and vascular smooth muscle cells. Additionally, OSM stimulates the production of IL-6, G-CSF and GM-CSF from endothelial cells and hence plays a role in hematopoiesis and myelopoiesis. OSM mediates the differentiation of megakaryocytes, as well as the regulation of cholesterol metabolism, bone formation and wound healing. OSM has also been shown to play a role in both pro and anti-inflammatory actions. OSM may also be involved in multiple sclerosis (MS), as it is present in MS lesions in microglial cells and infiltrating leukocytes.

### Theoretical Sequence

AAIGSCSKE YRVLLGQLQKQ TDLMQDTSRL LDPYIRIQGLD VPKLREHCRE RP G  
AFPSEET LRGLGRR GFLQTLNA TLGCVLHR LADLEQRL PKAQDLER SGLNIEDL  
EKLQMARP NILGLRNN IYCMAQLL DNSDTAEP TKAGRGAS QPPTPTPA S D A F  
QRK LEGCRFL HGYHRFMHSVGRVFSKWGESPNRSRRHSPHQALRKGVRR.

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<b>Molecular Mass</b>	Oncostatin M migrates as a broad band between 25 and 40 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. This compares with unmodified Oncostatin M that has a predicted molecular mass of 23.7 kDa.
<b>PI</b>	Oncostatin M separates into a number of isoforms with a pI between 5.5 and 10 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified Oncostatin M that has a predicted pI of 9.97.
<b>% Carbohydrate</b>	purified Oncostatin M consists of 0-40% carbohydrate by weight.
<b>Glycosylation</b>	Oncostatin M contains O-linked oligosaccharides.
<b>Purity</b>	>95%, as determined by SDS-PAGE and visualized by silver stain.
<b>Formulation</b>	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
<b>Reconstitution</b>	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
<b>Storage</b>	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C.
<b>Activity</b>	The ED <sub>50</sub> of Oncostatin M is typically 0.25-0.50 ng/ml as measured in a cell proliferation assay using the human growth factor-dependent TF-1 cell line.

## GENE INFORMATION

<b>Gene Name</b>	OSM oncostatin M [ Homo sapiens ]
<b>Synonyms</b>	oncostatin M; MGC20461; OSM; MGC20461

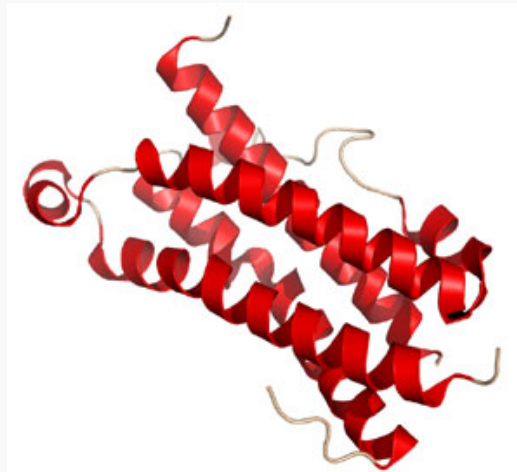
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<b>Gene ID</b>	5008
<b>mRNA Refseq</b>	NM_020530
<b>Protein Refseq</b>	NP_065391
<b>MIM</b>	165095
<b>UniProt ID</b>	P13725
<b>Chromosome Location</b>	22q12.2
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway
<b>Function</b>	cytokine activity; growth factor activity; oncostatin-M receptor binding

PDB rendering based on 1evs.



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