

Oncostatin M

Human, Recombinant (rHuOSM)

Expressed in *E. coli*

Cat. No. CRP0893

Lot. No. (See product label)

PRODUCT INFORMATION

Description: Oncostatin M (OSM) is a growth and differentiation factor that participates in the regulation of neurogenesis, osteogenesis and hematopoiesis. Produced by activated T cells, monocytes and Kaposi's sarcoma cells, OSM can exert both stimulatory and inhibitory effects on cell proliferation. It stimulates the proliferation of fibroblasts, smooth muscle cells and Kaposi's sarcoma cells, but, inhibits the growth of some normal and tumor cell lines. It also promotes cytokine release (e.g. IL-6, GM-CSF and G-CSF) from endothelial cells, and enhances the expression of low-density lipoprotein receptor in hepatoma cells. OSM share several structural and functional characteristics with LIF, IL-6, and CNTF. Human OSM is active on murine cells.

Amino-Acid Sequence: 227 aa, non-glycosylated.

M. W. : 26,000 Da.

Recombinant: Expressed in *E. coli*.

Purity: >95% as determined by SDS-PAGE and HPLC.

Formulation: Lyophilized from a 0.2µm filtered concentrated (1.0mg/ml) solution in PBS, pH 7.4.

Specific Activity: Fully biologically active when compared to the standard. The ED50 as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is < 2 ng/ml, corresponding to a specific activity of > 5×10⁵ units/mg.

Endotoxin: Less than 1EU/mg of rHuOSM as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤20°C. Further dilutions should be made in appropriate buffered solution.

Storage: This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

FOR RESEARCH USE ONLY



[PDB](#) rendering based on 1evs.

GENE INFORMATION

Gene Name: [OSM](#)

Synonyms: MGC20461; Oncostatin-M; Oncostatin-M Precursor

mRNA Refseq: [NM_020530](#)

Protein Refseq: [NP_065391](#)

MIM: [165095](#)

GeneID: [5008](#)

UniProt ID: [P13725](#)

Chromosome Location: 22q12.2

Pathway: Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway

Function: cytokine activity; oncostatin-M receptor binding

REFERENCES

1. Zarling, J.M., *et al.*, Oncostatin M: a growth regulator produced by differentiated histiocytic lymphoma cells. Proc Natl Acad Sci U S A, 1986. 83(24): p. 9739-43.
2. Malik, N., *et al.*, Molecular cloning, sequence analysis, and functional expression of a novel growth regulator, oncostatin M. Mol Cell Biol, 1989. 9(7): p. 2847-53.
3. Linsley, P.S., *et al.*, Cleavage of a hydrophilic c-terminal domain increases growth-inhibitory activity of Oncostatin M. Mol. And Cell. Biol., 1990. 10: p. 1882-1890.

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