



User Manual

Oncostatin-M (OSM) (Human)

Cat. No. HEOPP-15032

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.

Source:

Escherichia coli

Unit:

10 µg

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 solutions.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Storage:

This lyophilized preparation is stable 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.

Molecular Weight:

Approximately 25.7 kDa, a single non-glycosylated polypeptide chain containing 227 amino acids.

Endotoxin:

Less than 1 EU/μg of OSM as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a cell proliferation assay using human TF-1 cells is less than 2 ng/mL, corresponding to a specific activity of $> 5.0 \times 10^5$ IU/mg.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

AAIGSCSKEY RVLLGQLQKQ TDLMQDTSRL LDPYIRIQGL DVPKLRHCR
ERPGAFPSEE TLRGLGRRGF LQTLNATLGC VLHRLADLEQ RLPKAQDLER
SGLNIEDLEK LQMARPNILG LRNNIYCMAQ LLDNSDTAEP TKAGRGASQP

PTPTPASDAF QRKLEGCRFL HGYHRFMHSV GRVFSKWGES PNRSRRHSPH
QALRKGVRRT RPSRKGKRLM TRGQLPR

Purity:

> 95% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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