

# Recombinant Human Oncostatin-M, 196 a.a.

Catalog # FL006

## Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rHuOSM,196a.a. protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 2 ng/ml, corresponding to a specific activity of $\geq 5.0 \times 10^5$ IU/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, with 150 mM NaCl, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
Accession #	P13725 Lys26-Arg221
Amino acid sequence	AAIGSCSKEYRVLLGQLQKQTDLMQDTSRLLDPIYRIQGLDVPKLRHCRERPGAFPSEETLRGLGRRGFLQTLNATLGCVLHRLADLEQLPKAQDLERSGLNIEDLEKLQMARPNILGLRNNIYCAQLLDNSDTAEPKAGRGASQPPTPTPASDAFQRKLEGCRFLHGYHRFMHVSGRVFSKWGESPNRSRR
Molecular weight	Approximately 22.2 kDa, a single non-glycosylated polypeptide chain containing 196 amino acids.
Synonyms	Oncostatin M, Oncostatin-M, OSM
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$ . Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, $-20$ to $-70^\circ\text{C}$ as supplied. 1 month, $2$ to $8^\circ\text{C}$ under sterile conditions after reconstitution. 3 months, $-20$ to $-70^\circ\text{C}$ under sterile conditions after reconstitution.
Precautions	Recombinant Human Oncostatin-M, 196 a.a. is for research use only and not for use in diagnostic or therapeutic procedures.

## Background

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 receptors in hepatoma cells. OSM shares several structural and functional characteristics with LIF, IL-6, and CNTF. Human OSM is active on murine cells. The human OSM gene encodes for a 252 amino acid polypeptide, containing 25 amino acid signal sequence for secretion and a 227-precursor protein. Proteolytic processing of this precursor removes an 18 amino acid C-terminal peptide, and generates the mature OSM form. It has approximately 46% and 45% amino acid sequence identity with murine and rat OSM. Recombinant human OSM contains 196 amino acids and has a molecular mass of 22.2kDa.

