

Recombinant Rat Oncostatin

Catalog # FL008

Product Specifications

Appearance	Sterile colorless liquid.
Purity	> 96% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rRtOSM protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Rat
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine NIH-3 T3 cells is less than 2.0 ng/ml, corresponding to a specific activity of $\geq 5.0 \times 10^5$ IU/mg.
Concentration	No less than 10mg/ml, The concentration for a specific batch as shown in the COA
Formulation	A 0.2 μm filtered concentrated solution in 2 × PBS, with 0.1% (v/v) Tween-20.
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 aqueous buffer to an appropriate concentration. Stock solutions should be aliquoted into working aliquots and stored at $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	Q65Z15 Lys26-Arg239
Amino acid sequence	KRGCSSSPKLLSQLKSQANITGNTASLLEPYILHQNLTLTLRAACTEHPVAFPSDMLRQLSKPDFLSTVHATLGRVWHQLGAFRQQFPKIQDFPELERARQNIQGIRNNVYCMARLLHPPLEIPEPTQADSGTSRPTTAPGIFQIKIDSCRFLWGYHRFMG SVGRVFEEWGDGSRRSRRHSPLWAWLKGDRIRPSRSSQSAMLRSVPR
Molecular weight	Approximately 24.4 kDa, a single non-glycosylated polypeptide chain containing 215 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°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Rat Oncostatin is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Oncostatin-M (OSM) is a multifunctional cytokine that belongs to the Interleukin-6 subfamily. Among the family members, OSM is most closely related to leukemia inhibitory factor (LIF) and it in fact utilizes the LIF receptor in addition to its specific receptor in the human. A biologically active OSM receptor has been previously described that consists of a heterodimer of leukemia inhibitory factor receptor (LIFR) and gp130. OSM is synthesized by stimulated T-cells and monocytes. Furthermore, the effects of OSM on endothelial cells suggest a pro-inflammatory role for OSM and endothelial cells possess a large number of OSM receptors. Recombinant murine OSM contains 215 amino acids and has a molecular mass of 22.4kDa. It has approximately 48% and 72% amino acid sequence identity with human and murine OSM. Recombinant Rat OSM is a 24.4kDa globular protein containing 215 amino acid residues.

