

Recombinant Rat Oncostatin-M

#R00319

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

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 22.4 kDa. It has approximately 48 % and 72 % amino acid sequence identity with human and murine OSM.

AA Sequence

KRGCSSSSPKLLSQLKSQANITGNTASLLEPYILHQNL
NTLTLRAACTEHPVAFPSDMLRQLSKPDFLSTVHAT
LGRVWHQLGAFRQQFPKIQDFPELERARQNIQGIRN
NVYCMARLLHPPLEIPEPTQADSGTSRPTTTAPGIFQI
KIDSCRFLWGYHRFMGSVGRVFEEWGDGSRRSRRH
SPLWAWLKGDHRIRPSRSSQSAMLRLSLVPR

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.

Product Specification

Accession	Q65Z15
GeneID	289747
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 24.3 kDa, a single non-glycosylated polypeptide chain containing 214 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine NIH-3T3 cells is less than 2.0 ng/ml, corresponding to a specific activity of > 5.0 × 10 ⁵ IU/mg.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 2 × PBS, 0.1 % Tween-80.
Endotoxin	Less than 1 EU/µg of rRtOSM as determined by LAL method.