

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant OSM, Rat

Catalog Number: BK0149-50µg

Source: Escherichia coli.

Quantity: 50µg

Description:

Oncostatin M (OSM) is a multifunctional cytokine, and belongs to Interleukin-6 (IL-6) subfamily, which also includes IL-11, leukemia inhibitory factor (LIF), ciliary neurotropic factor, cardiotrophin-1, and novel neurotrophin-1. In vivo, OSM is secreted from activated T cells, monocytes, neutrophils, and endothelial cells. OSM is related to LIF, and shares a receptor with LIF in human. Human OSM can bind to gp130 and recruit OSM Receptor β or LIF Receptor β to form a ternary complex. OSM stimulates the growth of different types of cells, including megakaryocytes, fibroblasts, vascular endothelial cells, and T cells. OSM inhibits the proliferation of several cancer cell lines, such as solid tissue tumor cells, lung cancer cells, melanoma cells, and breast cancer cells. Recombinant Rat Oncostatin M (rrOSM) produced in E.coli is a single non-glycosylated polypeptide chain containing 215 amino acids. A fully biologically active molecule, rrOSM has a molecular mass of 24.5 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Molecular Weight:

24.5 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

Biological Activity:

ED50 < 10 ng/mL, measured by a cell proliferation assay using Rat Embryo Brain cells, corresponding to a specific activity of $> 1 \times 10^5$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MKRGCSSSSPKLLSQLKSQANITGN-
TASLLEPYILHQNLNTLT-
LRAACTEHPVAFPSDMLRQLSKPD-
FLSTVHATLGRVWHQLGAFRQQFPKIQDFPEL-
ERARQNIQGIRNNVYCMARLLHPPLEIPEP-
TQADSGTSRPTTTAPGIFQIKIDSCRFLWGY-
HRFMGSVGRVFEEWGDGSRSSRRRH-
SPLWAWLKGDRIRPSRSSQSAMLRSLVPR

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 µg/ml.

Storage:

Lyophilized recombinant Rat Oncostatin M (rrOSM) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rrOSM remains stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

Usage:

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