

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant OSM, Mouse

Catalog Number: BK0148-10µg

Source: Escherichia coli.

Quantity: 10µg

### 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  $\beta$  or LIF Receptor  $\beta$  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 Mouse Oncostatin M (rmOSM) produced in E.coli is a single non-glycosylated polypeptide chain containing 182 amino acids. A fully biologically active molecule, rmOSM has a molecular mass of 20.5 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

20.5 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:

MNRGCSNSSSQLLSQLQNQANLTGN-  
TESLLEPYIRLQNLNTPDLRAACTQHSAFPSEDT  
LRQLSKPHFLSTVYT-  
TLDRVLYQLDALRQKFLKTPAFPKLDSARHNIL-  
GIRNNVFCMARLLNHSLEIPEP-  
TQTDSGASRSTTTPDVFNKIGSCGFLWGY-  
HRFMGSVGRVFREWDDGSTRSR

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100 µg/ml.

### Storage:

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

### Usage:

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