

## OSM, Rat

**Cat. No.:** Z03144-10

**Size:** 10.0 ug

**Synonyms:** OSM

### 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 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.

### Amino Acid Sequence:

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00001 MKRGCSSSP KLLSQLKSQA NITGNTASLL EPYILHQLN
00041 TLTLRAACTE HPVAFPSDEM LRQLSKPDFL STVHATLGRV
00081 WHQLGAFRQQ FPKIQDFPEL ERARQNIQGI RNNVYCMARL
00121 LHPPLEIPEP TQADSGTSRP TTTAPGIFQI KIDSCRFLWG
00161 YHRFMGSVGR VFE EWGDSR RSRRHSP LWA WLKGDHRI RP
00201 SRSSQSAMLR SLVPR
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**Source:** *E. coli*

**Species:** Rat

**Biological Activity:** ED<sub>50</sub> < 10 ng/mL, measured by a cell proliferation assay using Rat Embryo Brain cells, corresponding to a specific activity of > 1 × 10<sup>5</sup> units/mg.

**Molecular Weight:** 24.5 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

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

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

**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.

**Storage:** Lyophilized recombinant Rat Oncostatin M (rrOSM) remains stable up to 6 months at lower than -70°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.