

OSM



## **Overview**

**Synonyms** 

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 neurotropin-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 <sup>2</sup> or LIF Receptor <sup>2</sup> 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.

Accession No P53347
Species Mouse
Source E. coli

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 > 1x 10<sup>5</sup> units/mg.

MNRGCSNSSS QLLSQLQNQA NLTGNTESLL EPYIRLQNLN TPDLRAACTQ HSVAFPSEDT LRQLSKPHFL STVYTTLDRV LYQLDALRQK FLKTPAFPKL DSARHNILGI RNNVFCMARL LNHSLEIPEP TQTDSGASRS TTTPDVFNTK IGSCGFLWGY

HRFMGSVGRV FREWDDGSTR SR

## **Properties**

Sequence

Measured Molecular 20.5 kDa, observed by reducing SDS-PAGE. Weight **Purity** > 95% as analyzed by SDS-PAGE and HPLC. Formulation Lyophilized after extensive dialysis against PBS. Reconstitution Reconstituted in ddH<sub>2</sub>O or PBS at 100 µg/ml. **Endotoxin Level** < 0.2 EU/µg, determined by LAL method. Lyophilized recombinant Mouse Oncostatin M (rmOSM) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmOSM remains stable up Storage to 2 weeks at 4°C or up to 3 months at -20°C. For research use only Note

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