

## DATASHEET

Version 20181206

# OSM (209aa), Human

**Cat. No.:** Z03132-1

**Size:** 1.0 mg

### 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 human Oncostatin M(209 a.a.) (rhOSM) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 210 amino acids. A fully biologically active molecule, rhOSM has a molecular mass of 23.8 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

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00001 MAAIGSCSKE YRVLLGQLQK QTDLMQDTSR LLDPYIRIQG
00041 LDVPKLEHC RERPGAFPSE ETLRGLGRRG FLQTLNATLG
00081 CVLHRLADLE QRLPKAQDLE RSGLNIEDLE KLQMARPNIL
00121 GLRNNIYCMQ QLLDNSDTAE PTKAGRGSQ PPTPTPASDA
00161 FQRKLEGCRF LHGYHRFMHS VGRVFSKWGE SPNRSRRHSP
00201 HQALRKGVR
```

**Source:** *E. coli*

**Species:** Human

**Biological Activity:**  $ED_{50} < 10$  ng/mL, measured by a cell proliferation assay using TF-1 cells, corresponding to a specific activity of  $> 1 \times 10^5$  units/mg.

**Molecular Weight:** 23.8 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  $\mu$ g/ml.

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

**Endotoxin Level:**  $< 0.2$  EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant human Oncostatin M(209 a.a.) (rhOSM) remains stable up to 6 months at lower than  $-70^{\circ}\text{C}$  from date of receipt. Upon reconstitution, rhOSM should be stable up to 2 weeks at  $4^{\circ}\text{C}$  or up to 3 months at  $-20^{\circ}\text{C}$ .