DATASHEET
Version 20181206

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 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 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.

Amino Acid Sequence:

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00001 MKRGCSSSSP KLLSQLKSQA NITGNTASLL EPYILHQNLN
00041 TLTLRAACTE HPVAFPSEDM LRQLSKPDFL STVHATLGRV
00081 WHQLGAFRQQ FPKIQDFPEL ERARQNIQGI RNNVYCMARL
00121 LHPPLEIPEP TQADSGTSRP TTTAPGIFQI KIDSCRFLWG
00161 YHRFMGSVGR VFEEWGDGSR RSRRHSPLWA WLKGDHRIRP
00201 SRSSQSAMLR SLVPR
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Source: *E. coli*

Species: Rat

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

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

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O 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.

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