

Active Recombinant Rat Osm Protein (215 aa)

Cat. No. Osm-3190 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	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.
Species	Rat
Source	E.coli
ProteinLength	215
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 neurotrophic 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 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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 10 ng/mL, measured by a cell proliferation assay using Rat Embryo Brain

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	cells, corresponding to a specific activity of $> 1 \times 10^5$ units/mg.
Molecular Mass	24.5 kDa, observed by reducing SDS-PAGE.
AA Sequence	MKRGCSSSSPKLLSQLKSQANITGNTASLLEPYILHQNLNTLTLRAACTEHPVAFPS DMLRQLSKPDFLSTVHATLGRVWHQLGAFRQQFPKIQDFPELERARQNIQGIRNNV YCMARLLHPPLEIPEPTQADSGTSRPTTTAPGIFQIKIDSCRFLWGYHRFMGSVGRV FEEWGDGSRRSRRHSPLWAWLKGDHRIRPSRSSQSAMLRSLVPR
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant Rat Oncostatin M (rrOSM) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rrOSM remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μg/mL.

GENE INFORMATION

Gene Name	Osm oncostatin M [<i>Rattus norvegicus</i>]
Official Symbol	Osm
Synonyms	OSM; oncostatin M;
Gene ID	289747

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mRNA Refseq	NM_001006961
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Protein Refseq	NP_001006962
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UniProt ID	Q65Z15
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