Overview

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 ^{2} or LIF Receptor ^{2} 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.
Accession No	P13725
Species	Human
Source	*E. coli*
Biological Activity	ED_{50} < 10 ng/mL, measured by a cell proliferation assay using TF-1 cells, corresponding to a specific activity of > 1×10^{5} units/mg.
Sequence	MAAIGSCSKE YRVLLGQLQK QTDLMQDTSR LLDPYIRIQG LDVPKLREHC RERPGAFPSE ETLRGLGRRG FLQTLNATLG CVLHRLADLE QRLPKAQDLE RSGLNIEDLE KLQMARPNIL GLRNNIYCMA QLLDNSDTAE PTKAGRGASQ PPTPTPASDA FQRKLEGCRF LHGYHRFMHS VGRVFSKWGE SPNRSRRHSP HQALRKGVRR

Properties

Measured Molecular Weight	23.8 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH_2O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant **human Oncostatin M(209 a.a.) (rhOSM)** remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhOSM should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Note	For research use only

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