

## Active Recombinant Human OSM Protein (209 aa)

**Cat. No.** OSM-064O    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b> | Recombinant Human OSM Protein without tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | 209                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | Oncostatin M (OSM) is a growth and differentiation factor that participates in the regulation of neurogenesis, osteogenesis and hematopoiesis. Produced by activated T cells, monocytes and Kaposi's sarcoma cells, OSM can exert both stimulatory and inhibitory effects on cell proliferation. It stimulates the proliferation of fibroblasts, smooth muscle cells and Kaposi's sarcoma cells, but, inhibits the growth of some normal and tumor cell lines. It also promotes cytokine release (e.g. IL-6, GM-CSF and G-CSF) from endothelial cells, and enhances the expression of low-density lipoprotein receptor in hepatoma cells. OSM share several structural and functional characteristics with LIF, IL-6, and CNTF. Human OSM is active on murine cells. |
| <b>Form</b>             | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Bio-activity</b>     | Fully biologically active when compared to the standard. The ED50 as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is < 2 ng/mL, corresponding to a specific activity of > 5 × 10 <sup>5</sup> units/mg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Molecular Mass</b>   | Approximately 23.9 kDa, a single non-glycosylated polypeptide chain containing 209                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | amino acids.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>AA Sequence</b>    | AAIGSCSKEYRVLLGQLQKQTDLMQDTSRLLDPYIRIQGLDVPKLREHCRERPGAFP<br>SEETLRGLGRRGFLQTLNATLGCVLHRLADLEQRLPKAQDLERSGLNIEDLEKLQMA<br>RPNILGLRNNIYCMAQLLDNSDTAEPTKAGRGASQPPTPTPASDAFQRKLEGCRFLH<br>GYHRFMHSVGRVFSKWGESPNRSRRHSPHQALRKGVRR                                                                                                                                                                 |
| <b>Endotoxin</b>      | Less than 1 EU/μg of rHuOSM(209a.a.) as determined by LAL method.                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>         | >97% by SDS-PAGE and HPLC analyses.                                                                                                                                                                                                                                                                                                                                                           |
| <b>Storage</b>        | This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles. |
| <b>Storage Buffer</b> | Lyophilized from a 0.2μm filtered concentrated solution in PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                       |
| <b>Reconstitution</b> | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20 centigrade. Further dilutions should be made in appropriate buffered solutions.   |

## GENE INFORMATION

|                        |                                   |
|------------------------|-----------------------------------|
| <b>Gene Name</b>       | OSM oncostatin M [ Homo sapiens ] |
| <b>Official Symbol</b> | OSM                               |

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| <b>Synonyms</b>       | OSM; oncostatin M; oncostatin-M; MGC20461; |
| <b>Gene ID</b>        | 5008                                       |
| <b>mRNA Refseq</b>    | NM_020530                                  |
| <b>Protein Refseq</b> | NP_065391                                  |
| <b>MIM</b>            | 165095                                     |
| <b>UniProt ID</b>     | P13725                                     |

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