Recombinant human OSM

Catalog No: #AG0023

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Description

Product Name	Recombinant human OSM
Host Species	HEK293
Purification	> 95% by Tris-Bis PAGE;> 95% by SEC-HPLC
Immunogen Description	Ala26-Arg252
Target Name	OSM
Other Names	Human Oncostatin M/OSM Protein
Accession No.	Uniprot:P13725Gene ID:5008
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GeneID	5008
Target Species	human
Calculated MW	25.8 KDa
Tag Info	addtional amino acid free
Formulation	0.22 μm filtered solution of PBS, pH 7.4.
Storage	Aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Background

OSM is a cytokine originally isolated from medium conditioned by PMA-treated U-937 human histiocytic leukemia cells based on its ability to inhibit growth of A375 melanoma cells. The human OSM cDNA encodes a 252 amino acid pre-pro-OSM polypeptide with a 25 residue hydrophobic signal peptide and a hydrophilic C-terminal domain that are proteolytically processed to generate the 196 residue mature form of OSM. Although both mature and pro-OSM are equally active in radio-receptor assays, the mature OSM is 5- to 60-fold more active in growth inhibition assays. Thus, proteolytic processing of the pro-OSM peptide may be important in regulating the in vivo activities of OSM.

OSM is a pleiotropic cytokine that initiates its biological activities by binding to specific cell surface receptors. The gp130, a signal transducing component (beta subunit) of the IL-6, LIF and CNTF receptor complexes, was identified as a low-affinity OSM receptor that does not transduce OSM signals. The low affinity LIF receptor (LIF R, a gp130-related protein) has now been identified to be a component of a high-affinity OSM receptor that will transduce OSM signals. Since OSM is also active on cells that do not express LIF R, a specific OSM receptor that does not involve LIF R must also exist. Besides its growth inhibitory activities on human A375 melanoma and mouse M1 myeloid leukemic cells, as well as on other solid tumor cells, OSM also has growth stimulatory activities on normal fibroblasts, AIDS-KaposioΩ½oΩ½s sarcoma cells, and a human erythroleukemia cell line, TF-1. Other OSM-mediated activities reported to date include: stimulation of plasminogen activator activity in cultured bovine aortic endothelial cells; regulation of IL-6 expression in human endothelial cells; and stimulation of LDL uptake and up-regulation of cell surface LDL receptors in HepG2 cells.

Note: This product is for in vitro research use only