

Human Oncostatin M / OSM Protein (His Tag)

Catalog Number: 10452-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

OSM

Protein Construction:

A DNA sequence encoding the mature form of human OSM (P13725) (Met 1-Arg 221) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human OSM-His (Cat: 10452-H08H) at 10 µg/ml (100 µl/well) can bind biotinylated human LIFR-His (Cat: 10628-H08H) with a linear range of 0.031-0.5 µg/ml. 2. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED₅₀ for this effect is typically 0.5-2.5 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 26

Molecular Mass:

The recombinant human OSM consists of 207 amino acids and has a predicted molecular mass of 23.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhOSM is approximately 32-35 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

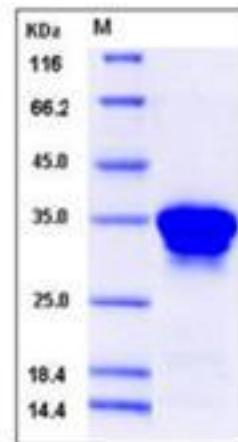
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Oncostatin M (OSM) is a glycoprotein belonging to the interleukin-6 family of cytokines that has functions mainly in cell growth. Oncostatin M (OSM) is considered as a pleiotropic cytokine that signals through cell surface receptors type I and type II both of which share the similarity of containing protein gp130 and takes part in many biometabolism processes including liver development, haematopoiesis, inflammation, bone formation and destruction and possibly CNS development. Oncostatin M (OSM) was previously identified by its ability to inhibit the growth of cells from melanoma and other solid tumors. It also has been reported that OSM, like LIF, IL-6 and G-CSF, has the ability to inhibit the proliferation of murine M1 myeloid leukemic cells and can induce their differentiation into macrophage-like cells. The human form of OSM is insensitive between pH2 and 11 and resistant to heating for one hour at 56 degree but is not stable at 90 degrees. The human OSM is produced as a precursor containing 252 amino acids, whose first 25 amino acids function as a secretory signal peptide and which on removal yields the soluble 227 amino acid pro-OSM. Removal of the C-terminal most 31 amino acids produces the fully active 196 residue form.

References

1.Tanaka M, *et al.* (2003) Oncostatin M, a multifunctional cytokine. *Rev Physiol Biochem Pharmacol. Reviews of Physiology, Biochemistry and Pharmacology.* 149: 39-52. 2.Auguste P, *et al.* (1997) Signaling of type II oncostatin M receptor. *J Biol Chem.* 272 (25): 15760-4. 3.Zarling JM, *et al.* (1986). Oncostatin M: a growth regulator produced by differentiated histiocytic lymphoma cells. *Proc Natl Acad Sci.* 83 (24): 9739-43.

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