Human Oncostatin M / OSM Protein

Catalog Number: 10452-HNAH

General Information

Gene Name Synonym:

OSM

Protein Construction:

A DNA sequence encoding the human OSM (NP_065391.1) (Met1-Arg221) was expressed.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

Bio Activity:

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells.The ED50 for this effect is typically 0.3-1.2ng/mL.

Endotoxin:

< 10 EU per mg protein.

Predicted N terminal: Ala 26

Molecular Mass:

The recombinant human OSM consists of 196 amino acids and predicts a molecular mass of 22.16 kDa. As a result of glycosylation, it migrates as an approximately 32 kDa band in SDS-PAGE under reducing conditions.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

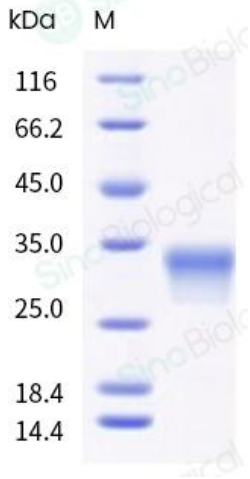
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 gp13 and takes part in many biometabolism processes including liver development, haematopoeisis, inflammation, bone formation and destruction and possibly CNS development. Oncostatin M (OSM) was previoustly 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 9 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-teminal 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.