

Oncostatin M/OSM Protein, Human, Recombinant (His)

General Information

Synonyms:	oncostatin M
Protein Construction:	Ala26-Arg221
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P13725
Molecular Weight:	23.24 kDa (Predicted); 30-40 kDa (Due to glycosylation)

QC Testing

Biological Activity:	Human LIF R, hFc Tag captured on CM5 Chip via Protein A can bind Human OSM, His Tag with an affinity constant of 0.884 μ M as determined in SPR assay (Biacore T200).
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 μ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

OSM is a pleiotropic cytokine that initiates its biological activities by binding to specific cell surface receptors. Inhibits the proliferation of a number of tumor cell lines. Stimulates proliferation of AIDS-KS cells. It regulates cytokine production, including IL-6, G-CSF and GM-CSF from endothelial cells. Uses both type I OSM receptor (heterodimers composed of LIFR and IL6ST) and type II OSM receptor (heterodimers composed of OSMR and IL6ST). Involved in the maturation of fetal hepatocytes, thereby promoting liver development and regeneration.

Reference

- Tanaka M,et al. (2003) Oncostatin M, a multifunctional cytokine. Rev Physiol Biochem Pharmacol. Reviews of Physiology, Biochemistry and Pharmacology. 149: 39-52.
- Auguste P,et al. (1997) Signaling of type II oncostatin M receptor. J Biol Chem. 272 (25): 15760-4.
- 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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