Data Sheet (Cat.No.TMPK-00145)

TargetMol

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

General Information

Synonyms:	Oncostatin M;OSM;MGC20461
Protein Construction:	Ala26-Arg221
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P13725
Molecular Weight:	25.1 kDa (predicted). Due to glycosylation, the protein migrates to 30-40 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Human LIF R, His Tag immobilized on CM5 Chip can bind Human OSM, His Tag with an affinity constant of 0.662 μM as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/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

Junk D J, et al. Oncostatin M promotes cancer cell plasticity through cooperative STAT3-SMAD3 signaling[J]. Oncogene, 2017.

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