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Product Information

HumanKine™ Oncostatin M human recombinant, expressed in HEK 293 cells

Catalog Number **H6541**
Storage Temperature –20 °C

CAS RN 106956-32-5
Synonyms: OSM

Product Description

HumanKine™ OSM is produced from a DNA sequence encoding the mature 196 amino acid residue of human OSM, expressed in human 293 cells resulting in authentic glycosylation. Glycosylation contributes to stability in cell growth media and other applications. Recombinant OSM exhibits a higher apparent molecular mass due to glycosylation (28–32 kDa). The *E. coli* expressed form of this cytokine is not glycosylated.

Oncostatin M (OSM) is a growth-regulating cytokine first identified by its ability to inhibit the growth of A375 melanoma cells and other human tumor cells, but not inhibit the growth of normal human fibroblasts. It acts synergistically with TGF-β1 to inhibit the proliferation of A375 melanoma cells.[1]

Oncostatin M is secreted by macrophages and activated T lymphocytes, and affects a wide variety of normal and tumor cells. It induces an increase in LDL receptor expression and LDL uptake by hepatoma cells.[2] OSM will induce cultured human endothelial cells to increase IL-6 production.[3] It activates synovial fibroblast-like cells to produce urokinase type plasminogen activator.[4] Oncostatin M, LIF, G-CSF, IL-6, and ciliary neurotrophic factor (CNTF) are structurally related members of the same cytokine family sharing similarities in their primary amino acid sequences, predicted secondary structure, and receptor components.[6]

This product is lyophilized from a TBS solution.

ED_{50}: ≤20 ng/ml

The specific activity is determined by the dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).

Purity: ≥95% (SDS-PAGE)

Endotoxin level: ≤1 EU/µg

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

Storage/Stability

Store the product at –20 °C. The lyophilized product remains active for one year at –20 °C. Upon reconstitution, the cytokine can be stored at 2–8 °C for short term only, or at –20 °C to –80 °C in aliquots for long term. Avoid repeated freeze-thaw cycles.

References

1. Brown, T. et al., J. Immunol., **139**, 2977 (1987).
2. Grove, R. et al., J. Biol. Chem., **266**, 18194 (1991).
3. Brown, T. et al., J. Immunol., **147**, 2175 (1991).
4. Hamilton, J. et al., Biochem. Biophys. Res. Commun., **180**, 652 (1991).
5. Rose, T. et al., Proc. Natl. Acad. Sci. USA, **88**, 8641 (1991).
6. Bazan, J. et al., Neuron, **7**, 197 (1991).

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