



Recombinant Human GM-CSF
(Granulocyte Macrophage Colony Stimulating Factor)

Catalog Number: 100-08

Accession Number: P04141

Specifications and Uses:

Alternate Names: CSF-2, Pluripoietin- α , MGI1GM

Description:

Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) is hematopoietic factor produced by endothelial cells, monocytes, fibroblasts and T cells in response to a number of inflammatory mediators. GM-CSF is able to stimulate the production of neutrophilic granulocytes, macrophages, and mixed granulocyte-macrophage colonies from bone marrow cells. GM-CSF can also stimulate some functional activities in mature granulocytes and macrophages. Human and mouse GM-CSF show no cross-reactivity. Recombinant human GM-CSF is a non-glycosylated protein, containing 127 amino acids, with a molecular weight of 14.5 kDa.

Source: *E.coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation and Stability:

Recombinant human GM-CSF is lyophilized from 10 mM Na₂PO₄, pH 7.5.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity (typically $\geq 95\%$) determined by:

UV spectroscopy at 280 nm.

RP-HPLC calibrated against a known standard.

Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 0.1 ng/mL or ≤ 1 EU/ μ g protein.

Biological Activity:

The activity is determined by the dose-dependent induction of human TF-1 cell proliferation and is typically less than 0.1 ng/mL.

AA Sequence:

MAPARSPSPS TQPWEHVNAI QEARRLLNLS RD TAAEMNET VE VISEMFDL QEPTCLQTRL ELYKQGLRGS
LTKLKGPLTM MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF DCWEPVQE

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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