

BACKGROUND

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 and having a molecular mass of 14.5 kDa.

Alternative Names:

CSF-2, Pluripoietin- α , MGI1GM

Amino Acid Sequence:

MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDAAEMNET
VEVISEMFDL QEPTCLQTRL ELYKQGLRGS LTKLKGPLTM
MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF
DCWEPVQE

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

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

Stability:

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 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:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

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.

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

