



Recombinant Human GM- CSF

Catalog Number: 100-08

Lot Number: 1206-100-08

Specifications and Use

Description:

Granulocyte Macrophage Colony Stimulating Factor is produced in response to a number of inflammatory mediators by mesenchymal cells present in the hemopoietic environment and at peripheral sites of inflammation. Granulocyte Macrophage-CSF is able to stimulate the production of neutrophilic granulocytes, macrophages, and mixed granulocyte-macrophage colonies from bone marrow cells and can stimulate the formation of eosinophil colonies from fetal liver progenitor cells. GM-CSF can also stimulate some functional activities in mature granulocytes and macrophages. GM-CSF receptors shows significant homologies with other receptors for hematopoietic growth factors, including IL2-beta, IL-3, IL-6, IL-7, EPO and the Prolactin receptors. Recombinant Human Granulocyte Macrophage CSF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 14477 Dalton.

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

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Source: E.coli

Formulation:

GM-CSF was lyophilized after extensive dialysis against 2mM sodium phosphate buffer pH= 7.4•0.1.

Reconstitution:

It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg's/ml, which can be further diluted into other aqueous solutions.

Stability:

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

Purity Greater than 98% as determined by:

Analysis by RP-HPLC.
Reducing and non-reducing SDS-PAGE.

Protein Content determined by:

UV spectroscopy at 280 nm.
Analysis by RP-HPLC calibrated against a known standard.
Quantitation on SDS-PAGE against a known standard.

Biological Activity:

GM-CSF is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) is less than 0.1 ng/ml, corresponding to a Specific Activity of 11.1x10⁶ IU/mg.

Endotoxin Level:

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

AA Sequence:

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

FOR RESEARCH USE ONLY.

NOT FOR USE IN HUMANS!

**Shenandoah
Biotechnology, Inc.
1-215-672-7550**