



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Mouse Granulocyte-Colony Stimulating Factor

Catalog No.
228-10504

Source:
E. Coli

Synonyms

CSF3, MGI-1G, GM-CSF beta, Pluripoietin, G-CSF, GCSF.

Introduction:

Granulocyte Colony Stimulating Factor is a growth factor and/or cytokine produced by the endothelium, macrophages and a number of other immune cells. GCSF stimulates the bone marrow to produce granulocytes and also to stimulate the survival, proliferation, differentiation and function of neutrophil granulocyte progenitor cells and mature neutrophils.

Description:

Granulocyte Colony Stimulating Factor Mouse Recombinant produced in E.coli is a single, non-glycosylated, polypeptide chain containing 179 amino acids and having a molecular mass of 19 KD. G-CSF is purified by proprietary chromatographic techniques.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

GCSF was lyophilized with no additives.

Solubility

It is recommended to reconstitute the lyophilized Granulocyte Colony Stimulating Factor in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Stability:

Lyophilized Granulocyte Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GCSF should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Purity

Greater than 95.0% as determined (1) by Analysis by RP-HPLC.
(2) Analysis by SDS-PAGE.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Val-Pro-Leu-Val.

Biological Activity

The ED₅₀ range=0.01-0.03 ng/mL, determined by the dose-dependant proliferation of mouse NFS-60 cells. The optimal concentration for each specific application should be determined by an initial dose-response assay.

Protein content

GCSF quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.51 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of G-CSF as a Reference Standard.

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