

Granulocyte Colony Stimulating Factor, mouse recombinant (rmG-CSF)

Catalog No: 94967 Lot No: XXXXX Source: *E. coli*

Synonyms: CSF3, MGI-1G, GM-CSF beta, Pluripoietin, G-CSF, GCSF

Background

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 progenator cells and mature neutrophils.

Description

Granulocyte Colony Stimulating Factor mouse recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 178 amino acids and having a molecular mass of 18.9 kDa. G-CSF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

GCSF was lyophilized from 10 mM Sodium citrate, pH 4.0 and 150 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized GCSF in sterile 18 M Ω -cm H $_2$ O not less than 100 μ g/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.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

VPLVTVSAL PPSLPLPRSF LLKSLEQVRK IQASGSVLLE QLCATYKLCH PEELVLLGHS LGIPKASLSG CSSQALQQTQ CLSQLHSGLC LYQGLLQALS GISPALAPTL DLLQLDVANF ATTIWQQMEN LGVAPTVQPT QSAMPAFTSA FQRRAGGVLA ISYLQGFLET ARLALHHLA

Activity

The ED50 calculated by the dose-dependant proliferation of murine NFS-60 indicator cells (measured by 3 H-thymidine uptake) is <0.05 ng/ml, corresponding to a specific activity of 2 x 10^{7} IU/mg.





Usage

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