9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

G CSF Human

Granulocyte-Colony Stimulating Factor Human Recombinant
GRF0108

Product Overview

Name	G CSF Human
Description	
Granulocyte-Colony Stimulating Factor Human Recombinant	
Accession (Primary)	P09919
Synonyms	
CSF-3, MGI-1G, GM-CSF beta, Pluripoietin, Lenograstim, G-CSF, MGC45931, GCSF.	
Introduction	
GCSF is a cytokine that controls the production, differentiation, and function of granulocytes. The active protein is found extracellularly. Three transcript variants encoding three different isoforms have been found for the GCSF gene. Granulocyte/macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. This csf induces granulocytes.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
GCSF was lyophilized after extensive dialysis against 10mM sodium acetate buffer pH= 4.	
Stability	
Lyophilized GCSF 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	
The sequence of the first five N-terminal amino acids of GCSF was determined and was found to be Met-Thr-Pro-Leu-Gly.	
Biological Activity	

9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

The ED50, calculated by the dose-dependant proliferation of murine NFS-60 indicator cells (measured by 3H-thymidine uptake) is < 0.1 ng/ml, corresponding to a Specific Activity of 100,000,000 IU/mg.

Solubility

It is recommended to reconstitute the lyophilized GCSF in sterile 20mM AcOH not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

References

Title :Contribution of an Aged Microenvironment to Aging-Associated Myeloproliferative Disease. Publication :Vas V, Wandhoff C, Dörr K, Niebel A, Geiger H (2012) Contribution of an Aged Microenvironment to Aging-Associated Myeloproliferative Disease. PLoS ONE 7(2): e31523. doi:10.1371/journal.pone.0031523 Link : G CSF prospec publication

Protein content

GCSF quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.815 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 GCSF as a Reference Standard.

Precautions

G CSF Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P09919)