Human Granulocyte-Colony Stimulating Factor (G-CSF)

ORDERING INFORMATION
Catalog No: rAP-0064;
Size: 2 µg; 10 µg
Storage: <- 20° C

Synonyms:
CSF-3, MGI-1G, GM-CSF beta, Pluripoietin, Filgrastim, 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 this 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.

Description:
Granulocyte Colony Stimulating Factor Human Recombinant produced in E.coli is a single, non-glycosylated, polypeptide chain containing 175 amino acids and having a molecular mass of 18.8 KD. G-CSF is purified by proprietary chromatographic techniques.

Source:
Escherichia Coli.

Physical Appearance:
Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:
G-CSF was lyophilized after extensive dialysis against 10mM sodium acetate buffer pH= 4.

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.

Amino acid sequence:
The sequence of the first five N-terminal amino acids was determined and was found to be Met-Thr-Pro-Leu-Gly.

Purity:
Greater than 98.0% as determined by:
Analysis by RP-HPLC.
Analysis by SDS-PAGE.
Biological Activity:
The ED50, calculated by the dose-dependant proliferation of murine NFS-60 indicator cells (measured by 
$^3$H-thymidine uptake) is < 0.1 ng/ml, corresponding to a Specific Activity of $1 \times 10^8$ IU/mg.

Protein content:
G-CSF 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).


Usage:
Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not
be used as drugs, agricultural or pesticidal products, food additives or household chemicals.