

# Human Granulocyte-Colony Stimulating Factor (G-CSF), CHO

# ORDERING INFORMATION

Catalog No: rAP-0066; Size: 2 µg; 10 µg Storage: <- 20° C

#### Synonyms:

CSF-3, MGI-1G, GM-CSF beta, Pluripoietin, Filgrastim, Lenograstim, G-CSF, MGC45931, 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 progenator cells and mature neutrophils.

# **Description:**

Granulocyte Colony Stimulating Factor Human Recombinant produced in E.coli is a single, glycosylated, polypeptide chain containing 174 amino acids and having a molecular mass of 20 KD.G-CSF is purified by proprietary chromatographic techniques.

#### Source:

Chinese Hamster Ovary Cells (CHO).

## **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

#### Formulation:

G-CSF was lyophilized from a concentrated (1mg/ml) solution containing 10mM Hydrochloric Acid pH=6.5, 0.4mg tween 20, 100mg mannitol, 160 mg L-arginine, 40 mg phenylalanin and 4mg methionin.

#### Solubility:

It is recommended to reconstitute the lyophilized Granulocyte Colony Stimulating Factor in sterile  $18M\Omega$ -cm H2O not less than  $100\mu g/ml$ , which can then be further diluted to other agueous solutions.

#### Stability:

Lyophilized Granulocyte Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution G-CSF 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 Thr-Pro-Leu-Gly-Pro.

# **Purity:**

Greater than 98.0% as determined by: Analysis by RP-HPLC. Analysis by SDS-PAGE.

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# **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 1.27 x  $10^{8}$  IU/mg.

#### **Protein content:**

GCSF quantitation was carried out by two independent methods:

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).

Analysis by RP-HPLC, using a calibrated solution of Granulocyte Colony Stimulating Factor as a Reference Standard.

### **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.