# **Product Name: Recombinant Human G-CSF**

Catalog #: PCH2551



### **Summary**

Name G-CSF

**Purity** Greater than 98% as determined by reducing SDS-PAGE

**Endotoxin level** ≤10 EU/mg

Construction Recombinant Human G-CSF is produced by our Mammalian cell expression

system and the target gene encoding Thr31-Pro204 is expressed.

Accession # P09919

**Host** Human Cells

Species Human

Predicted Molecular Mass 18.7 kDa

Formulation Lyophilized From PBS,5% mannitol and 0.01% Tween 80, pH7.4

**Shipping** The product is shipped on dry ice/polar packs.Upon receipt, store it immediately

at the temperature listed below.

Stability&Storage Store at  $\leq$ -70°C, stable for 6 months after receipt.Store at  $\leq$ -70°C, stable for 3

months under sterile conditions after opening. Please minimize freeze-thaw

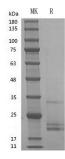
cycles

**Reconstitution** Always centrifuge tubes before opening.Do not mix by vortex or pipetting.It is not

recommended to reconstitute to a concentration less than 100µg/ml.Dissolve the lyophilized protein in distilled water.Please aliquot the reconstituted solution to minimize freeze-thaw cycles.Always centrifuge tubes before opening.Do not mix by vortex or pipetting.It is not recommended to reconstitute to a concentration less than 100µg/ml.Dissolve the lyophilized protein in distilled water.Please

aliquot the reconstituted solution to minimize freeze-thaw cycles.

### **SDS-PAGE** image



## **Background**

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**Alternative Names** 

**Background** 

Granulocyte Colony-Stimulating Factor; G-CSF; Pluripoietin; Filgrastim; Lenograstim; CSF3; C17orf33; GCSF

Granulocyte colony-stimulating factor (G-CSF or GCSF) is also known as colonystimulating factor 3, CSF3, C17orf33, CSF3OS, GCSF, MGC45931. It is a glycoprotein, growth factor and cytokine produced by a number of different tissues to stimulate the bone marrow to produce granulocytes and stem cells. G-CSF then stimulates the bone marrow to release them into the blood. G-CSF also stimulates the survival, proliferation, differentiation, and function of neutrophil precursors and mature neutrophils. G-CSF regulates them using Janus kinase (JAK)/signal transducer and activator of transcription (STAT) and Ras /mitogenactivated protein kinase (MAPK) and phosphatidylinositol 3-kinase (PI3K)/protein kinase B (Akt) signal transduction pathway. G-CSF is produced by endothelium, macrophages, and a number of other immune cells. The natural human glycoprotein exists in two forms, a 174- and 180-amino-acid-long protein of molecular weight 19,600 grams per mole. G-CSF can effect on the hematopoietic system and neuronal cells as a neurotrophic factor. The action of G-CSF in the central nervous system is to induce neurogenesis, to increase the neuroplasticity and to counteract apoptosis. G-CSF stimulates the production of white blood cells (WBC). In oncology and hematology, a recombinant form of G-CSF is used with certain cancer patients to accelerate recovery from neutropenia after chemotherapy, allowing higher-intensity treatment regimens. Another form of recombinant human G-CSF called lenograstim is synthesised in Chinese Hamster Ovary cells (CHO cells). The recombinant human G-CSF synthesised in an E. coli expression system is called filgrastim.

#### Note

For Research Use Only, Not for Diagnostic Use.

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