

## Active Recombinant Human Colony Stimulating Factor 3 (granulocyte)

**Cat. No.** CSF3-272H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human G-CSF produced in E.coli is a single, non-glycosylated, polypeptide chain containing 175 amino acids and having a molecular mass of 18.8 KD.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	Human G-CSF induces the survival, proliferation, and differentiation of neutrophilic granulocyte precursor cells and functionally activates mature blood neutrophils. Among the family of colony-stimulating factors, G-CSF is the most potent inducer of terminal differentiation to granulocytes and macrophages of leukemic myeloid cell lines.
<b>Form</b>	Recombinant G-CSF was lyophilized from 10 mM NaCitate, pH 3.0.
<b>Purity</b>	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Bio-activity</b>	Recombinant Human Granulocyte-Colony Stimulating Factor is fully biologically active when compared to standard. The ED50 was calculated by the dose-dependant proliferation of mouse NFS-60 is less then 0.1 ng/ml.
<b>Physical Appearance</b>	Sterile Filtered white lyophilized (freeze-dried) powder.

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<b>Solubility</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/s/ml, which can be further diluted into other aqueous solutions.
<b>Purity Greater than 95% as determined by</b>	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Protein Content determined by</b>	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
<b>Endotoxin Level</b>	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
<b>Amino acid sequence</b>	TPLGPASSLP QSFLKCLEQ VRKIQGDGAA LQEKLCATYK LCHPEELVLL GHSLGIPWAP LSSCPSQALQ LAGCLSQLHS GLFLYQGLLQ ALEGISPELG PTLDTLQLDV ADFATTIWQQ MEELGMAPAL QPTQGAMPAF ASAFQRRAGG VLVASHLQSF LEVSYRVLRH LAQP
<b>Storage</b>	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.
<b>Pathways</b>	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway

## GENE INFORMATION

**Gene Name** CSF3 colony stimulating factor 3 (granulocyte) [ Homo sapiens ]

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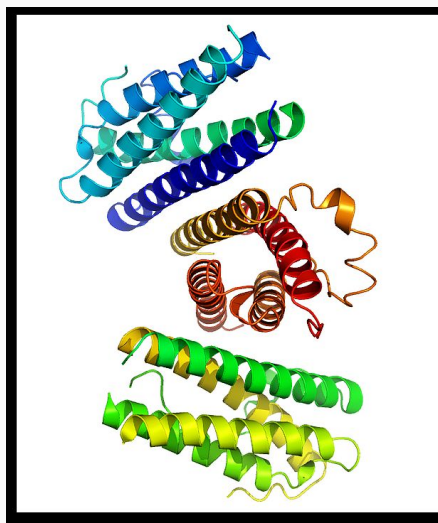
<b>Official Symbol</b>	CSF3
<b>Synonyms</b>	CSF3; colony stimulating factor 3 (granulocyte); GCSF; G-CSF; MGC45931; colony stimulating factor 3; filgrastim; lenograstim; pluripoietin; granulocyte colony stimulating factor; Filgrastim; Lenograstim; OTTHUMP00000164327; Pluripoietin
<b>Gene ID</b>	1440
<b>mRNA Refseq</b>	NM_000759
<b>Protein Refseq</b>	NP_000750
<b>MIM</b>	138970
<b>UniProt ID</b>	P09919
<b>Chromosome Location</b>	17q11.2-q12
<b>Function</b>	cytokine activity; enzyme binding; growth factor activity; granulocyte colony-stimulating factor receptor binding


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**Crystal structure of 3  
molecules of human  
G-CSF. From PDB  
1rhg.**



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