

Active Recombinant Human Colony Stimulating Factor 3 (granulocyte)

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	E.coli
Description	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.
Form	Recombinant G-CSF was lyophilized from 10 mM NaCitate, pH 3.0.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	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.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

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Solubility	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.
Purity Greater than 95% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	TPLGPASSLP QSFLKCLEQ VRKIQGDGAA LQEKLCATYK LCHPEELVLL GHSLGIPWAP LSSCPSQALQ LAGCLSQLHS GLFLYQGLLQ ALEGISPELG PTLDTLQLDV ADFATTIWQQ MEELGMAPAL QPTQGAMPAF ASAFQRRAGG VLVASHLQSF LEVSYRVLRLH LAQP
Storage	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.
Pathways	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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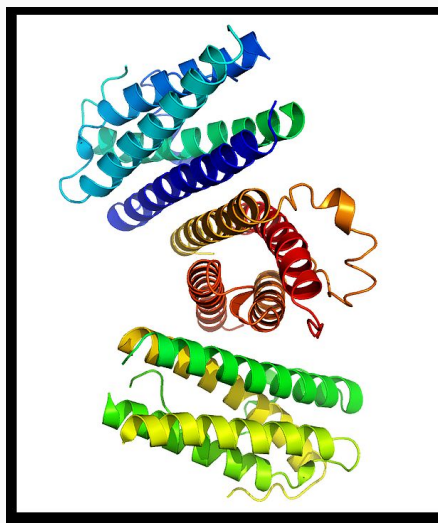
Official Symbol	CSF3
Synonyms	CSF3; colony stimulating factor 3 (granulocyte); GCSF; G-CSF; MGC45931; colony stimulating factor 3; filgrastim; lenograstim; pluripoietin; granulocyte colony stimulating factor; Filgrastim; Lenograstim; OTTHUMP00000164327; Pluripoietin
Gene ID	1440
mRNA Refseq	NM_000759
Protein Refseq	NP_000750
MIM	138970
UniProt ID	P09919
Chromosome Location	17q11.2-q12
Function	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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