

Active GMP Recombinant Human CSF3 protein

Cat. No. CSF3-4340HG Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF3 was produced in E. coli using non-animal reagents in an animal-free facility under cGMP guidelines.
Species	Human
Source	E.coli
Description	Granulocyte Colony Stimulating Factor (G-CSF) is a pleiotropic cytokine best known for its specific effects on the proliferation, differentiation, and activation of hematopoietic cells of the neutrophilic granulocyte lineage. It is produced mainly by monocytes and macrophages upon activation by endotoxin, TNF-α and IFN-γ. Other cell types including fibroblasts, endothelial cells, astrocytes and bone marrow stromal cells can also secrete G-CSF after LPS, IL-1 or TNF-α activation. In addition, various carcinoma cell lines and myeloblastic leukemia cells can express G-CSF constitutively. In humans, two distinct cDNA clones for G-CSF, encoding 207 and 204 amino acid precursor proteins, have been isolated. Both proteins have a 30 amino acid signal peptide and have identical amino acid sequences except for a three amino acid insertion (deletion) at the 35th amino acid residue from the N-terminus of the mature protein. Human G-CSF is 73% identical at the amino acid level to murine G-CSF and the two proteins show species cross-reactivity.
Form	Lyophilized from a 0.2 μ m filtered concentrated solution in 10 mM sodium acetate buffer, containing 5% trehalose, pH 4.0.

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Bio-activity	The ED50 determined by a cell proliferation assay using murine NFS-60 cells is less than 0.1 ng/mL, corresponding to a specific activity of $>1.0 \times 10^7$ IU/mg.
Molecular Mass	Approximately 18.7 kDa, a single non-glycosylated polypeptide chain containing 174 amino acids.
AA Sequence	TPLGPASSLPQSFLKCLEQVRKIQGDGAALQEKLCAATYKLCHEPEELVLLGHSLGIP WAPLSSCPSQALQLAGCLSQLHSGFLYQGLLQALEGISPELGPTLDTLQLDVADFA TTIWQQMEELGMAPALQPTQGAMPAFASAFQRRAGGVLVASHLQSFLEVSYRVLR HLAQP
Endotoxin	Less than 1 EU/μg of the protein by LAL method.
Purity	>98% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw cycles.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.
Quality Statement	Our GMP proteins are produced according to relevant sections of the following documents: WHO TRS, No. 822, 1992 Annex 1, Good Manufacturing Practices for Biological Products; USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and USP Chapter 92, Growth Factors and Cytokines

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Used in Cell Therapy Manufacturing.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

GENE INFORMATION

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

Official Symbol CSF3

Synonyms

CSF3; colony stimulating factor 3 (granulocyte); C17orf33, chromosome 17 open reading frame 33 , G CSF, GCSF; granulocyte colony-stimulating factor; filgrastim; granulocyte colony stimulating factor; lenograstim; MGC45931; pluripoietin; GCSF; CSF3OS; C17orf33;

Gene ID 1440

mRNA Refseq NM_000759

Protein Refseq NP_000750

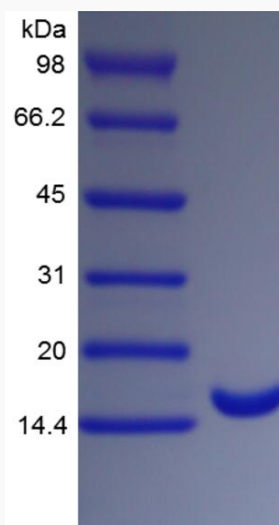
MIM 138970

UniProt ID P09919

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