

Recombinant Human CSF3 protein

Cat. No. CSF3-223H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF3 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	174
Description	Granulocyte colony stimulating factor (G-CSF) is a pleiotropic cytokine. It is mainly produced by monocytes and macrophages upon activation by endotoxin, TNF-α and IFN-γ. Besides, many other cell types can secrete this protein after LPS, IL-1 or TNF-α activation, which are fibroblasts, endothelial cells, astrocytes and bone marrow stromal cells. Various carcinoma cell lines and myeloblastic leukemia cells can express G-CSF constitutively. G-CSF is cytokine that acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. In addition it may function in some adhesion or recognition events at the cell surface. In humans, two distinct cDNA clones for G-CSF, encoding 207 and 204 amino acid (a.a.) precursor proteins, have been isolated. Both proteins have a 30 a.a. signal peptide and have identical amino acid sequences except for a three a.a. insertion (deletion) at the 35th a.a. 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.

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Form	Lyophilized from a 0.2µm filtered concentrated solution in 10mM sodium acetate buffer, containing 5 % trehalose, pH 4.0.
Bio-activity	Fully biologically active when compared to standard. The ED50 as 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	TPLGPASSLPQSFLKCLEQVRKIQGDGAALQEKLCAATYKLCHEPELVLLGHSLGIP WAPLSSCPSQALQLAGCLSQLHSGFLYQGLLQALEGISPELGPTLDTLQLDVADFA TTIWQQMEELGMAPALQPTQGAMPAFASAFQRRAGGVLVASHLQSFLEVSYRVLR HLAQP
Endotoxin	Less than 1 EU/µg of rHuG-CSF as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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.

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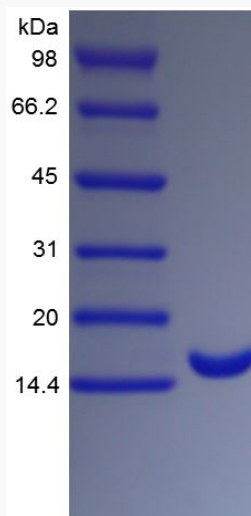
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GENE INFORMATION

Gene Name	CSF3
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; pluripoiectin; GCSF; CSF3OS; C17orf33;
Gene ID	1440
mRNA Refseq	NM_000759
Protein Refseq	NP_000750
MIM	138970
UniProt ID	P09919

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**SDS-PAGE of CSF3-
223H**



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