

Growth Factor Data Sheet

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Colony Stimulating Factor 3 (CSF3), formerly called 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 . Many cell types secrete this protein after LPS, IL1 or TNF- α activation, including fibroblasts, endothelial cells, astrocytes and bone marrow stromal cells. Various carcinoma cell lines and myeloblastic leukemia cells can express CSF3 constitutively. CSF3 is a cytokine that acts in hematopoiesis by controlling the production, differentiation and function of two 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.

Catalog Number	1520-02
Product Name	CSF3 (G-CSF), Rat Recombinant Rat Colony Stimulating Factor 3 (granulocyte) Granulocyte Colony-Stimulating Factor, G-CSF Pluripoietin
Source	<i>Escherichia coli</i>
MW	~21.5 kDa (195 amino acids)
Sequence	KKIPLLVSS LPPSLPLPRS FLLKSLEQVR KIQARNTTELL EQLCATYKLC HPEELVLFHG SLGIPKASLS SCSSQALQQT KCLSQLHSG LFLYQGLLQAL AGISSELAPT LDMLHLDVDN FATTIWQQME SLGVAPTQVP TQSTMPIFTS AFQRRAGGVL VTSYLQSFLE TAHHALHHLP RPAQKHPES LFISI
Accession Number	P97712
Purity	>97% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ determined by a cell proliferation assay using murine NFS-60 cells is less than 0.05 ng/ml, corresponding to a specific activity of >2.0 × 10 ⁷ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.