

# 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 $\alpha$  and IFN $\gamma$ . Many cell types secrete this protein after LPS, IL1 or TNF $\alpha$  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 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. The murine CSF3 cDNA encodes a 208 amino acid residue precursor protein containing a 30 amino acid residue signal peptide that is proteolytically cleaved to generate the 178 amino acid residue mature protein. Murine CSF3 is 73% identical at the amino acid level to human CSF3 and the two proteins show species crossreactivity.

<b>Catalog Number</b>	<b>1320-02</b>
<b>Product Name</b>	<b>CSF3 (G-CSF), Murine</b> Recombinant Murine Colony Stimulating Factor 3 (granulocyte) Granulocyte Colony-Stimulating Factor, G-CSF Pluripoietin
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~18.9 kDa (178 amino acids)
<b>Sequence</b>	VPLVTVSALP PSLPLPRSF LKSLQVRKI QASGSVLEEQ LCATYKLCHP EELVLLGHSL GIPKASLSGC SSQALQQTQC LSQ LHSGLCL YQGLLQALSG ISPALAPTL D LLQLD VANFA TTIWQQMENL GVAPT VQPTQ SAMP AFTSAF QRRAGGV LAI SYLQGFLETA RLALHHLA
<b>Accession Number</b>	<a href="#">P09920</a>
<b>Purity</b>	>98% by SDS-PAGE and HPLC analyses
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as 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 <sup>7</sup> IU/mg.
<b>Formulation</b>	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
<b>Storage/Handling</b>	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.
<b>Reconstitution</b>	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.