

## Recombinant Rat G-CSF

### Information

Gene ID	25610
Accession #	P97712
Alternate Names	
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 21.5 kDa, a single non-glycosylated polypeptide chain containing 195 amino acids.
AA Sequence	KKIPLLTVSS LPPSLPLPRS FLLKSLEQVR KIQARNTTELL EQLCATYKLC HPEELVLFGH SLGIPKASLS SCSSQALQQT KCLSQLHSG LFLYQGGLLQAL AGISSELAPT LDMLHLDVDN FATTIWQQME SLGVAPTQVP TQSTMPIFTS AFQRRAGGVL VTSYLQSFLE TAHHALHHLP RPAQKHFPES LFISI
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 5 mM Sodium Citrate, pH 4.0.
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 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED <sub>50</sub> 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.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Rat G-CSF	10 µg	100 µg	500 µg

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## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rRtG-CSF as determined by LAL method.

## Description

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- $\gamma$ . Besides, many other cell types can secrete this protein after LPS, IL-1 or TNF $\alpha$  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 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.

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