Recombinant Murine Granulocyte Colony Stimulating Factor (rMuG-CSF)

PrimeGene Technical Data Sheet

Catalog Number:	122-02
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 18.9 kDa, a single non-glycosylated polypeptide chain containing 178 amino acids.
Quantity:	2μg/10μg/1000μg
AA Sequence:	VPLVTVSALP PSLPLPRSFL LKSLEQVRKI QASGSVLLEQ LCATYKLCHP EELVLLGHSL GIPKASLSGC SSQALQQTQC LSQLHSGLCL YQGLLQALSG ISPALAPTLD LLQLDVANFA TTIWQQMENL GVAPTVQPTQ SAMPAFTSAF QRRAGGVLAI SYLQGFLETA RLALHHLA
Purity:	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} 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 × 10^7 IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in 10 mM Sodium Citrate, pH 4.0, 150 mM NaCl, 0.01 % Tween-20.
Endotoxin:	Less than 0.1 EU/μg of rMuG-CSF as determined by LAL method.
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.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Murine Granulocyte Colony Stimulating Factor

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 secreted 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.

The murine G-CSF cDNA encodes a 208 amino acid (a.a.) residue precursor protein containing a 30 a.a. residue signal peptide that is proteolytically cleaved to generate the 178 a.a. residue mature protein. Murine G-CSF is 73 % identical at the amino acid level to human G-CSF and the two proteins show species cross-reactivity.

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