

BACKGROUND

Granulocyte Colony-Stimulating Factor, or G-CSF, is a growth factor that is considered the most potent inducer of terminal differentiation to granulocytes and macrophages of leukemic myeloid cell lines. The synthesis of G-CSF can be induced by bacterial endotoxins, TNF, IL-1 and GM-CSF. Prostaglandin E2 inhibits the synthesis of G-CSF, while in epithelial, endothelial, and fibroblastic cells secretion of G-CSF is induced by IL-17. Human and mouse G-CSF are cross-reactive.

Recombinant mouse G-CSF is a non-glycosylated protein, containing 179 amino acids and having a molecular mass of 19 kDa.

Alternative Names:

CSF-3, MGI-1G, GM-CSF β , pluripoietin

Amino Acid Sequence:

MVPLVTVSAL PPSLPLPRSF LLKSLEQVRK IQASGSVLE
QLCATHYKLCH PEELVLLGHS LGIPKASLSG CSSQALQQTQ
CLSGLHSGLC LYQGLLQALS GISPALAPTL DLLQLDVANF
ATTIWQQMEN LGVAPTVOPT QSAMPAFTSA FQRRAGGVLA
ISYLGQFLET ARLALHHLA

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

Recombinant mouse G-CSF is lyophilized with no additives.

Stability:

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

The activity is calculated by the dose-dependent proliferation of mouse M-NFS-60 cells and is typically less than 10-60 ng/mL.

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

