



Recombinant Human G-CSF
(Granulocyte Colony Stimulating Factor)

Catalog Number: 100-72

Accession Number: P09919

Specifications and Uses:

Alternate Names: CSF-3, MGI-1G, GM-CSF β , pluripoiectin

Description:

Granulocyte-Colony Stimulating Factor (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 human G-CSF is a non-glycosylated protein, containing 175 amino acids, with a molecular weight of 18.8 kDa.

Source: *E.coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation and Stability:

Recombinant human G-CSF is lyophilized from 10 mM sodium citrate, pH 3.0. 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 (typically \geq 95%) determined by:

Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm

Endotoxin Level:

Measured by kinetic LAL analysis and is typically \leq 1 EU/ μ g protein.

Biological Activity:

The activity is determined by the dose-dependent proliferation of mouse NFS-60 and is typically 10-60 pg/mL.

AA Sequence:

TPLGPASSLP QSFLKCLEQ VRKIQGDGAA LQEKLCATYK LCHPEELVLL GHSLGIPWAP LSSCPSQALQ
LAGCLSQLHS GLFLYQGLLQ ALEGISPELG PTLDTLQLDV ADFATTIWQQ MEELGMAPAL QPTQGAMPAP
ASAFQRRAGG VLVASHLQSF LEVSYRVLRH LAQP

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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