

Recombinant human G-CSF protein

Catalog Number: CSF4001

PRODUCT INFORMATION

Expression system

E.coli

Domain

31-204aa

UniProt No.

P09919

NCBI Accession No.

NP_757373.1

Alternative Names

Granulocyte-colony stimulating factor, CSF3, GCSF, G-CSF, G-CSF, Pluripoietin, Filgrastim, Lenograstim, Granulocyte colony-stimulating factor, Granulocyte-colony stimulating factor Colony stimulating factor 3 (granulocyte), CSF 3, CSF beta, CsfG, GCSA, Granulocyte colony stimulating factor, Lenograstim, Macrophage granulocyte inducer 2, MGC45931, MGI 2,

PRODUCT SPECIFICATION

Molecular Weight

18.8 kDa (175aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 range ≤ 0.3 ng/ml.

Tag

Non-Tagged

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Human granulocyte colony-stimulating factor (hG-CSF) is one of the hematopoietic growth factors which plays an important role in stimulating proliferation, differentiation, and functional activation of blood cells. In addition to its effect on hematopoiesis, G-CSF also enhances neutrophil functions against bacteria, fungi, and tumor cells mediated by antibody-dependent cell-mediated cytotoxicity. Recombinant hG-CSF was expressed in *E. coli* and purified by FPLC gel-filtration chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

Amino acid Sequence

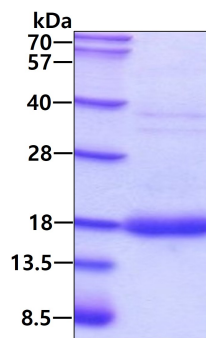
MTPLGPASSL PQSFLKCLE QVRKIQGDGA ALQEKLKATY KLCHPEELVL LGHSLGIPWA PLSSCPSQAL QLAGCLSQLH
SGLFLYQGLL QALEGISPEL GPTLDTLQLD VADFATTIWQ QMEELGMAPA LQPTQGAMPA FASAFQRRAG GVLVASHLQS
FLEVSRYVLR HLAQP

General References

- Nomura H, et al.(1986) EMBO J , 5(5): 871-6
- Nagata, S., et al.(1986) Nature, 319 : 415-418
- Demetri, G. D., et al.(1991) Blood, 78: 2791-2808
- Hill, C. P., et al (1993) Proc. Natl. Acad. Sci. uSA, 90:5167-5171

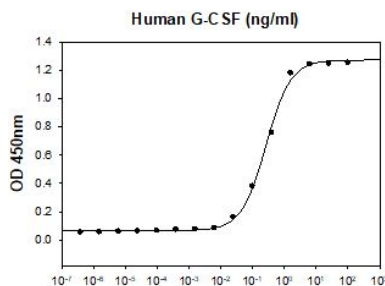
DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Biological Activity



Human G-CSF stimulates cell proliferation of the M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 range ≤ 0.3 ng/ml.