

Human G-CSF / CSF3 Protein (Fc Tag)

Catalog Number: 10007-H01H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

CSF3, GCSF, G-CSF, MGC45931

Protein Construction:

A DNA sequence encoding the mature form of human GCSF isoform b (NP_757373.1) (Ala 30-Pro 204) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

Measured in a cell proliferation assay using a murine myeloblastic cell line, NFS-60. The ED50 for this effect is typically 0.2-0.8 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant mature human GCSFb/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 412 amino acids and has a calculated molecular mass of 45.4 kDa. As a result of glycosylation, the rh GCSFb/Fc monomer migrates as an approximately 48 kDa protein in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

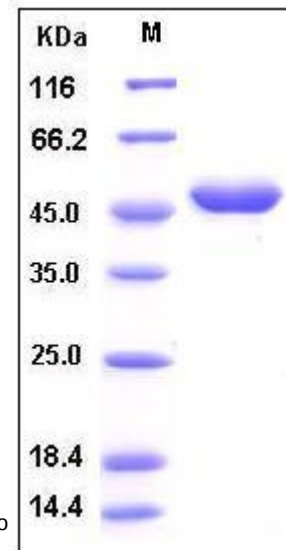
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

1 the products.

Protein Description

Granulocyte-colony stimulating factor (G-CSF) is a growth factor and an essential cytokine belonging to the CSF family of hormone-like glycoproteins that regulate haematopoietic cell proliferation and differentiation. G-CSF was isolated initially as a factor supporting the growth of colonies of granulocytes in soft agar cultures. Cells of the monocyte/macrophage lineage are among the most prominent sources of G-CSF, but this factor can also be produced by normal cells of mesodermal origin, including vascular endothelial cells, fibroblasts, and mesothelial cells. Production of G-CSF can be induced in vitro in these cells by a wide variety of stimulatory agents, including LPS, TNF, IL-1, IL-3, IL-4, and IFN-γ. G-CSF is likely to play a role in the basal regulation of neutrophil production, and also functions as a primary regulatory factor controlling the neutrophil response to inflammatory stimuli. Furthermore, G-CSF exhibits other biological activities besides the proliferative effects, since G-CSF appears to modulate the distribution of neutrophils and progenitor cells within the body.

References

1. Khanna-Gupta A, et al., 2006, J Leukoc Biol. 79 (5):1011-21.
2. Nagata, et al., 1986, Nature. 319: 415-418.
3. George D. Demetri, et al., 1991, Blood, Vol78, No 11: 2791-2808.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>