

DATASHEET
Version 20181206**G-CSF, Human****Cat. No.:** Z02974-50**Size:** 50.0 ug**Synonyms:** CSF-3, C17 or f33,**Description:**

Granulocyte Colony-Stimulating Factor (G-CSF) contains internal disulfide bonds. Among the family of colony-stimulating factors, Granulocyte Colony Stimulating Factor (G-CSF) is the most potent inducer of terminal differentiation to granulocytes and macrophages of leukemic myeloid cell lines. The synthesis of Granulocyte Colony Stimulating Factor (G-CSF) can be induced by bacterial endotoxins, TNF, Interleukin-1 and GM-CSF. Prostaglandin E2 inhibits the synthesis of Granulocyte Colony Stimulating Factor (G-CSF). In epithelial, endothelial, and fibroblastic cells secretion of Granulocyte Colony Stimulating Factor (G-CSF) is induced by Interleukin-17.

Recombinant human Granulocyte Colony-Stimulating Factor (rhG-CSF) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 175 amino acids. A fully biologically active molecule, rhG-CSF is obtained by proprietary chromatographic techniques at GenScript, with an apparent molecular mass of 18.8 kDa analyzed by reducing SDS-PAGE.

Amino Acid Sequence:

00001 MTPLGPASSL PQSFLKCLE QVRKIQGDGA ALQEKLCATY
00041 KLCHPEELVL LGHSLGIPWA PLSSCPSQAL QLAGCLSQLH
00081 SGLFLYQGLL QALEGISPEL GPTLDTLQLD VADFATTIWQ
00121 QMEELGMAPA LQPTQGAMPA FASAFQRRAG GVLVASHLQS
00161 FLEVSRYRVLRL HLAQP

Source: *E. coli***Species:** Human**Biological Activity:** ED₅₀ <0.1 ng/ml, measured by a cell proliferation assay of M-NFS-60 cells, corresponding to a specific activity of >1.0 × 10⁷ IU/mg.**Molecular Weight:** 18.8 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against 25 mM Tris, pH 8.0.**Reconstitution:** Reconstituted in ddH₂O at 100 µg/ml.**Purity:** > 95% by SDS-PAGE and HPLC analyses.**Endotoxin Level:** <0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant human Granulocyte Colony-Stimulating Factor (rhG-CSF) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhG-CSF should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.