

## 32-12081: Human Granulocyte-Colony Stimulating Factor

**Gene :** CSF3  
**Gene ID :** 1440  
**Uniprot ID :** P09919  
**Alternative Name :** Pluripoietin, C17orf33, GCSF, CSF-3, MGI-1G, GM-CSFbeta

### Description

**Source:** Genetically modified E.coli.

**Predicted MW:** Monomer, 18.8 kDa (175 aa)

Granulocyte-colony stimulating factor (G-CSF) is a cytokine that functions as a potent inducer of neutrophilic granulocyte proliferation, terminal differentiation, and activation. G-CSF synthesis occurs in monocyte, macrophage, epithelial, endothelial, and fibroblast cells after activation by bacterial endotoxins, tumor necrosis factor alpha (TNF-alpha), interleukin 1 (IL-1), or interleukin 17 (IL-17). The functional activity of G-CSF is mediated through the granulocyte colony-stimulating factor receptor (G-CSF-R) to activate JAK/STAT and MAPK signal transduction pathways. G-CSF also promotes neurogenesis and inhibits neuronal apoptosis. Human and mouse G-CSF proteins are cross-reactive.

### Product Info

**Amount :** 10 µg / 100 µg  
**Purification :** Reducing and Non-Reducing SDS PAGE at  $\geq 95\%$   
**Content :** Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium citrate, pH 4.0  
Sterile water at 0.1 mg/mL  
**Storage condition :** Store at -20°C  
**Amino Acid :** MTPLGPASSL PQSFLKCLE QVRKIQGDGA ALQEKLCATY KLCHPEELVL LGHSLGIPWA PLSSCPSQAL  
QLAGCLSQLH SGLFLYQGLL QALEGISPEL GPTLDTLQLD VADFATTIWQ QMEELGMAPA LQPTQGAMPA  
FASAFQRRAG GVLVASHLQS FLEVSRYVLR HLAQP

### Application Note

**Endotoxin:** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.

Biological Activity was determined by NFS-60 cell proliferation at  $\leq 50$  pg/mL;  $\geq 2.0 \times 10^7$  units/mg (typical ED50 is 5-15 pg/mL). Centrifuge vial before opening, Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80°C and avoid repeat freeze thaws. Upon reconstitution, a small amount of visible precipitate can be expected. A 10% overfill has been added to the total material vial to compensate for this loss.



