

## 32-7002: Recombinant Human Granulocyte Colony-Stimulating Factor/G-CSF

**Gene :** CSF3  
**Gene ID :** 1440  
**Uniprot ID :** P09919

### Description

Source: E. coli. MW:18.8kD.

Recombinant Human Granulocyte Colony-Stimulating Factor is produced by our E.coli expression system and the target gene encoding Thr31-Pro204 is expressed. Human Granulocyte-Colony-Stimulating Factor (G-CSF) is 20 kD glycoprotein containing internal disulfide bonds. It induces the survival, proliferation, and differentiation of neutrophilic granulocyte precursor cells and it functionally activates mature blood neutrophils. Among the family of colony-stimulating factors, G-CSF is 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, Interleukin-1, and GM-CSF. Prostaglandin E2 inhibits the synthesis of G-CSF. In epithelial, endothelial, and fibroblastic cells secretion of G-CSF is induced by Interleukin-17.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Lyophilized from a 0.2 µm filtered solution of 10mM HAc-NaAc, 150mM NaCl, 0.004% Tween 80, 5% Mannitol, pH 4.0.  
**Storage condition :** Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.  
**Amino Acid :** MTPLGPASSLPQSFLKCLEQVRKIQQDGAALQEKLCAATYKLCCHPEELVLLGHSLGIPWAPLSSCPS  
QALQLAGCLSQLHSGFLFYQGLLQALEGISPELGPTLDTLQLDVADFATTIWQQMEELGMAPALQP  
TQGAMPAFASAFQRRAGGVLVASHLQSFLEVSYRVLRLHAQP

### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

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

**Biological Activity:** ED<sub>50</sub> is less than 0.1 ng/ml. Specific Activity of 6.0 x 10<sup>7</sup> IU/ mg, measured by the dose-dependent proliferation of murine NFS-60 indicator cells.