

## Recombinant Rat Csf3 protein, His/S-tagged

**Cat. No.** Csf3-182R    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**      Recombinant Rat Csf3 fused with His/S tag was expressed in E. coli.

**Species**                      Rat

**Source**                        E.coli

**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-Gamma. 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.

**Form**                              Lyophilized from sterile PBS, pH 7.4

**Purity**                            > 95 % as determined by SDS-PAGE

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**Storage** Store at -70 centigrade. Avoid repeated freeze/thaw cycles.

## GENE INFORMATION

**Gene Name** Csf3 colony stimulating factor 3 (granulocyte) [ *Rattus norvegicus* ]

**Official Symbol** Csf3

**Synonyms** CSF3; colony stimulating factor 3 (granulocyte); granulocyte colony-stimulating factor;

**Gene ID** 25610

**mRNA Refseq** NM\_017104

**Protein Refseq** NP\_058800

**Chromosome Location** 10q31

**Pathway** Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Cytokines and Inflammatory Response (BioCarta), organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;

**Function** cytokine activity; enzyme binding; enzyme binding; growth factor activity;

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