

Recombinant Rat G-CSF (CSF3)

Cat No:HR2R2262

For research use only

Overview

Quantity	100 ?g
Gene Symbol	CSF3
Gene ID	N/A
Accession	P97712
Alternative Name	Granulocyte colony stimulating factor
Species	Rat
Source	E. coli
Description	<p>G-CSF is secreted by monocytes, macrophages, and neutrophils after cell activation. It is produced also by stromal cells, fibroblasts, endothelial cells, epithelial carcinomas, acute myeloid leukemia cells, and various tumor cell lines. The synthesis of G-CSF can be induced by bacterial endotoxins, TNF, IL1 and GM-CSF. Comparison of the primary sequence of G-CSF with those of the two other colony stimulating factors, GM-CSF and M-CSF, shows that the three factors are not related to each other. G-CSF stimulates the proliferation and differentiation of hematopoietic progenitor cells committed to the neutrophils and granulocytes lineage in a dose-dependent manner. G-CSF synergises with some other cytokines, including GM-CSF and IL4. GM-CSF and G-CSF are required, for example, to develop neutrophilic colonies in vitro. The concerted action of G-CSF and Epo is required to support the growth of mixed colonies of the early erythroid progenitors. A combination of IL4 with G-CSF has been shown to lead to synergistic suppression of the growth of some human leukemic cell lines. Recombinant Rat G-CSF is a 21.6 kDa protein consisting of 196 amino acid residues.</p>
Functions	N/A
Formulation	Lyophilized from 0.2 ?m filtered solution in PBS
Solubility	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Appearance	Lyophilized Powder
Molecular Weight	21.8
Purity	>95% as determined by SDS-PAGE
Concentration	<1.0 EU/?g of recombinant protein as determined by the LAL method
Shipping Condition	Ambient Temperature

Storage
Condition

The lyophilized protein is stable for at least one year from date of receipt at -70°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2° - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

