

RP00573

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Recombinant Mouse CSF-3/G-CSF Protein

Catalog No.: RP00573 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	12985	P09920

Tags

C-His

Synonyms

Granulocyte colony-stimulating factor;Csf3;G-CSF

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Granulocyte colony-stimulating factor (G-CSF) is a growth factor and an essential cytokine which belongs to the IL-6 superfamily. Granulocyte/macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. G-CSF binding to its receptor G-CSF-R which belongs to the cytokine receptor type I family depends on the interaction of alpha-helical motifs of the former and two fibronectin type III as well as an immunoglobulin-like domain of the latter. G-CSF is a cytokine that has been demonstrated to improve cardiac function and perfusion in myocardial infarction. And it was initially evaluated as a stem cell mobilizer and erythropoietin as a cytoprotective agent.

Basic Information

Description

Recombinant Mouse CSF-3/G-CSF Protein is produced by Human Cells expression system. The target protein is expressed with sequence (Met1-Ala208) of mouse G-CSF/CSF3 (Accession #P09920) fused with a 6×His tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED₅₀ for this effect is 38.7-154.8 pg/mL, corresponding to a specific activity of 6.46×10^6 - 2.58×10^7 units/mg.

Storage

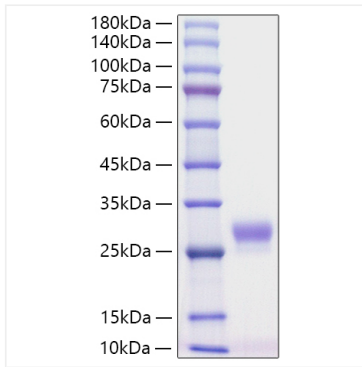
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

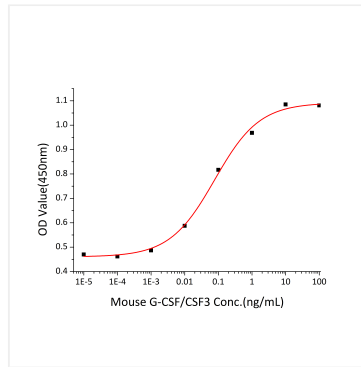


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Validation Data



Recombinant Mouse G-CSF/CSF3 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue, showing a band at 25-35 kDa.



Recombinant Mouse G-CSF/CSF3 stimulates cell proliferation of the NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED_{50} for this effect is 38.7-154.8 $\mu\text{g/mL}$, corresponding to a specific activity of 6.46×10^6 - 2.58×10^7 units/mg.