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Recombinant Rat CSF-1/M-CSF Protein

Catalog No.: RP01847 Recombinant

Sequence Information

Species Gene ID Swiss Prot HEK293 cells 78965 Q8JZQ0

Tags

C-His

Synonyms

Macrophage colony-stimulating factor 1; CSF-1; MCSF; Proteoglycan macrophage colony-stimulating factor; PG-M-CSF; Cleaved into: Processed macrophage colony-stimulating factor 1; Macrophage colony-stimulating factor 1 43 kDa subunit, Csf1; Csfm

Product Information

Source Purification

HEK293 cells ≥ 95 % as determined by SDS-PAGE.

Endotoxin

 $< 0.1 \; \text{EU/}\mu\text{g}$ of the protein by LAL method.

Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial 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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

Macrophage colony-stimulating factor (M-CSF), also known as colony-stimulating factor-1 (CSF-1), is a hemopoietic growth factor that regulates the survival, proliferation, differentiation and function of the cells of the mononuclear phagocyte lineage. M-CSF is produced by a variety of cell types and acts both locally and humorally in an autocrine and paracrine manner. Through differential mRNA splicing and posttranslational proteolytic processing and modification, M-CSF is expressed in three biologically-active isoforms: a secreted glycoprotein; a secreted proteoglycan; and a membrane spanning cell-surface glycoprotein.

Basic Information

Description

Recombinant Rat CSF-1/M-CSF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Ser255) of Rat CSF-1/M-CSF (Accession #NP_076471.3) fused with a His tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED $_{50}$ for this effect is 5.63-22.51 ng/mL, corresponding to a specific activity of $4.44\times10^4\sim1.78\times10^5$ units/mg.

Storage

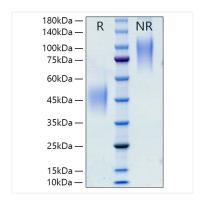
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20° C for 3 months, at $2-8^{\circ}$ C for up to 1 week.

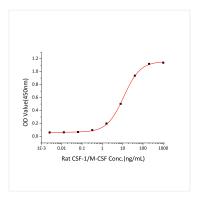
Avoid repeated freeze/thaw cycles.

^{*} For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Rat CSF-1/M-CSF Protein was determined by SDS-PAGE under reducing (R) and nonreducing (NR) conditions.



Recombinant Rat CSF-1/M-CSF stimulates cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED $_{50}$ for this effect is 5.63-22.51 ng/mL, corresponding to a specific activity of $4.44\times10^4\sim1.78\times10^5$ units/mg.