

Active Recombinant Human CSF2 Protein (Ala18-Glu144), N-His tagged, Animal-free, Carrier-free

Cat. No. CSF2-28H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF2 Protein (Ala18-Glu144) with N-His tag was expressed in E. coli and Animal-free as well as Carrier-free.
Species	Human
Source	E.coli
ProteinLength	Ala18-Glu144
Description	Granulocyte-macrophage colony-stimulating factor (GM-CSF) was first identified as a Growth Factors due to its ability to induce proliferation and differentiation of bone marrow progenitors into granulocytes and macrophages. GM-CSF is produced by multiple cell types including activated T cells, B cells, macrophages, endothelial cells and fibroblasts upon receiving immune stimuli. GM-CSF stimulates stem cells to produce granulocytes and monocytes functions as a cytokine.
Form	Lyophilized
Bio-activity	Measure by its ability to induce TF-1 cells proliferation. The ED50 for this effect is < 80 pg/mL. The specific activity of recombinant human GM-CSF is approximately $>1 \times 10^7$ IU/mg.
Molecular Mass	The protein has a calculated MW of 15.4 kDa. The protein migrates as 15 kDa under reducing condition (SDS-PAGE analysis).

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Endotoxin	< 0.1 EU/μg of the protein by the LAL method.
Purity	>98% as determined by SDS-PAGE analysis.
Storage	This product is stable after storage at: -20 centigrade for 12 months in lyophilized state from date of receipt. -20 or -80 centigrade for 1 month under sterile conditions after reconstitution. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH 8.0.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H ₂ O to a concentration not less than 200 μg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at -20 centigrade or lower for long term storage.

GENE INFORMATION

Gene Name	CSF2 colony stimulating factor 2 (granulocyte-macrophage) [Homo sapiens (human)]
Official Symbol	CSF2
Synonyms	CSF2; colony stimulating factor 2 (granulocyte-macrophage); granulocyte-macrophage colony-stimulating factor; GM CSF; GMCSF; granulocyte macrophage colony stimulating factor; molgramostin; sargramostim; CSF; colony-stimulating factor; granulocyte-macrophage colony stimulating factor; MGC131935; MGC138897;
Gene ID	1437

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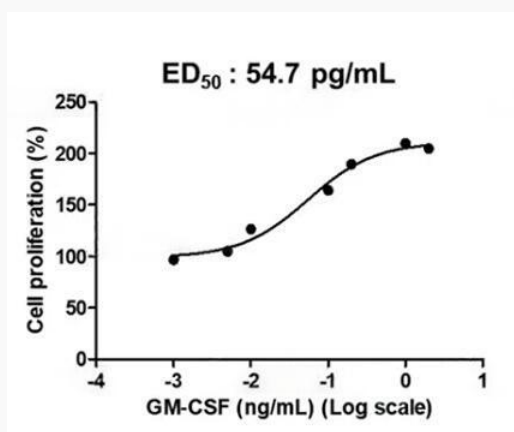
mRNA Refseq [NM_000758](#)

Protein Refseq [NP_000749](#)

MIM [138960](#)

UniProt ID [P04141](#)

Activity



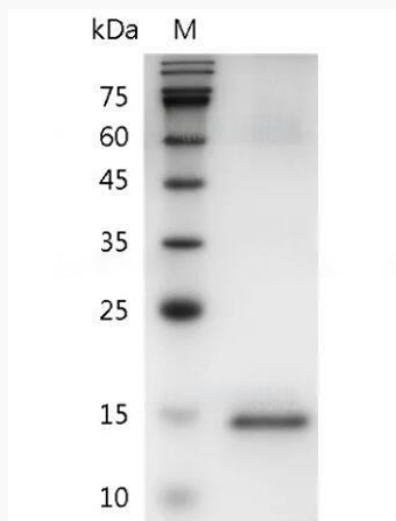
Human GM-CSF, His Tag, E. coli (LDG044PHE) induced TF-1 cell proliferation, with the ED50 at 54.7 pg/mL.

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**SDS-PAGE analysis
of recombinant
human GM-CSF.**



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