

Active Recombinant Human CSF2 Protein

Cat. No. CSF2-276C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF2 Protein without tag was expressed in CHO.
Species	Human
Source	CHO
Description	Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors. Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) is produced by a number of different cell types, including activated T cells, B cells, macrophages, mast cells, endothelial cells, and fibroblasts, in response to cytokine of immune and inflammatory stimuli. Besides granulocyte-macrophage progenitors, Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) is a growth factor for erythroid, megakaryocyte, and eosinophil progenitors. On mature hematopoietic cells, GM-CSF is a survival factor for and activates the effector functions of granulocytes, monocytes/macrophages and eosinophils. Human Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) can induce human endothelial cells to migrate and proliferate. Additionally, Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) can stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma, and adenocarcinoma cell lines.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 0.2 ng/mL, measured in a cell proliferation assay using TF-1 cells,

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corresponding to a specific activity of $> 5 \times 10^6$ units/mg.

Molecular Mass	22-28 kDa, observed by non-reducing SDS-PAGE.
AA Sequence	APARSPSPSTQPWEHVNAIQEARRLLNLSRDAAEMNETVEVISEMFDLQEPTCLQT RLELYKQGLRGSLTKLKGPLTMMASHYKQHCPPTPETSCATQIITFESFKENLKDFLL VIPFDCWEPVQE
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant human Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhGM-CSF should be stable up to 1 week at 4 centigrade or up to 2 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μg/mL.

GENE INFORMATION

Gene Name	CSF2 colony stimulating factor 2 (granulocyte-macrophage) [Homo sapiens]
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;

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Gene ID	1437
mRNA Refseq	NM_000758
Protein Refseq	NP_000749
MIM	138960
UniProt ID	P04141

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