

Active Recombinant Human CSF2 Protein

Cat. No. CSF2-135H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Granulocyte-Macrophage Colony-Stimulating Factor is produced by our E.coli expression system and the target gene encoding Ala18-Glu144 is expressed.
Species	Human
Source	E.coli
ProteinLength	Ala18-Glu144
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. It 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, GM-CSF is also a growth factor for erythroid, megakaryocyte and eosinophil progenitors. On mature hematopoietic, monocytes/macrophages and eosinophils. GM-CSF has a functional role on non-hematopoietic cells. It can induce human endothelial cells to migrate and proliferate. Additionally, GM-CSF can also stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines.
Form	Lyophilized from a 0.2 um filtered solution of 20mM PB, 150mM NaCl, 5% Mannitol, pH 7.2.

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Bio-activity	Measured by the dose-dependent stimulation of human TF-1 cell proliferation. ED50 is less than 0.1 ng/ml. Specific Activity of 1.0×10^7 IU/ mg.
AA Sequence	MAPARSPSPSTQPWEHVNAIQEARRLLNLSRDTAAEMNETVEVISEMFDLQEPTCL QTRLELYKQGL RGSCLKLKGPLTMMAS HYKQHCPPTPETSCATQIITFESFKENLK DFLLVIPFDCWEPVQE
Endotoxin	Less than 0.1 ng/ug (1 EU/ug).
Purity	>95%
Storage	Lyophilized protein should be stored at < -20 centigrade, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7 centigrade for 2-7 days. Aliquots of reconstituted samples are stable at < -20 centigrade for 3 months.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Statement	Purity: Greater than 95% as determined by reducing SDS-PAGE.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.

GENE INFORMATION

Gene Name	CSF2 colony stimulating factor 2 [Homo sapiens (human)]
Official Symbol	CSF2

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Synonyms	Granulocyte-Macrophage Colony-Stimulating Factor; GM-CSF; Colony-Stimulating Factor; CSF; Molgramostin; Sargramostim; GMCSF
Gene ID	1437
mRNA Refseq	NM_000758.4
Protein Refseq	NP_000749.2
MIM	138960
UniProt ID	P04141
SDS-PAGE	