

Recombinant Human CSF2 protein

Cat. No. CSF2-110H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF2 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	127
Description	Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF) is secreted by a number of different cell types (including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts) in response to cytokine or immune and inflammatory stimulation. It was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors and has functions of stimulates the growth and differentiation of hematopoietic precursor cells from various lineages. GM-CSF has also been reported to have a functional role on non-hematopoietic cells and can induce human endothelial cells to migrate and proliferate. Additionally, it can stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines. Human GM-CSF shares 54 % sequences identity with mouse GM-CSF, but has no biological effects across species. GM-CSF is used as a medication to stimulate the production of white blood cells following chemotherapy and has also recently been evaluated in clinical trials for its potential as a vaccine adjuvant in HIV-infected patients.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.
Molecular Mass	Approximately 14.5 kDa, a single non-glycosylated polypeptide chain containing 127 amino acids.
AA Sequence	APARSPSPSTQPWEHVNAIQEARRLLNLSRDAAEMNETVEVISEMFDLQEPTCLQT RLELYKQGLRGSLTKLKGPLTMMASHYKQHCPPTPETSCATQIITFESFKENLKDFLL VIPFDCWEPVQE
Endotoxin	Less than 1.0 EU/µg of rHuGM-CSF as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	GSF2
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Official Symbol	GSF2
Synonyms	Granulocyte/Macrophage Colony-Stimulating Factor, CSF-2, MGI-1GM, Pluripoietin- α
Gene ID	1437
mRNA Refseq	NM_000758.4
Protein Refseq	NP_000749.2
MIM	138960
UniProt ID	P04141

SDS-PAGE of CSF2-110H

