

Recombinant Human CSF2 protein

Cat. No. CSF2-515H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF2 protein (Ala18-Glu144) carries no tag and was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	127
Description	Granulocyte-macrophage colony-stimulating factor (GM-CSF) is also known as Colony stimulating factor 2 (granulocyte-macrophage), is a cytokine initially characterized by its ability to induce colonies of granulocytes and macrophages from myeloid progenitor cells, and is secreted by macrophages, T cells, mast cells, endothelial cells and fibroblasts. GM-CSF is a cytokine that functions as a white blood cell growth factor. GM-CSF stimulates stem cells to produce granulocytes (neutrophils, eosinophils, and basophils) and monocytes. Monocytes exit the circulation and migrate into tissue, whereupon they mature into macrophages and dendritic cells. Thus, it is part of the immune/inflammatory cascade, by which activation of a small number of macrophages can rapidly lead to an increase in their numbers, a process crucial for fighting infection. The active form of the protein is found extracellularly as a homodimer. Human GM-CSF glycosylated in its mature form. As a part of the immune/inflammatory cascade, GM-CSF promotes Th1 biased immune response, angiogenesis, allergic inflammation, and the development of autoimmunity, and thus worthy of consideration for therapeutic target. GM-CSF has

 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

also recently been evaluated in clinical trials for its potential as a vaccine adjuvant in HIV-infected patients. The preliminary results have been promising. GM-CSF is also used as a medication to stimulate the production of white blood cells following chemotherapy.

Form	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 14.5 kDa. The protein migrates as 18-26 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 0.1 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CSF2
Official Symbol	CSF2
Synonyms	CSF2; colony stimulating factor 2 (granulocyte-macrophage); granulocyte-

 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

macrophage colony-stimulating factor; GM-CSF; GM-CSF; granulocyte macrophage colony stimulating factor; molgramostin; sargramostim; CSF; colony-stimulating factor; granulocyte-macrophage colony stimulating factor; MGC131935; MGC138897

Gene ID 1437

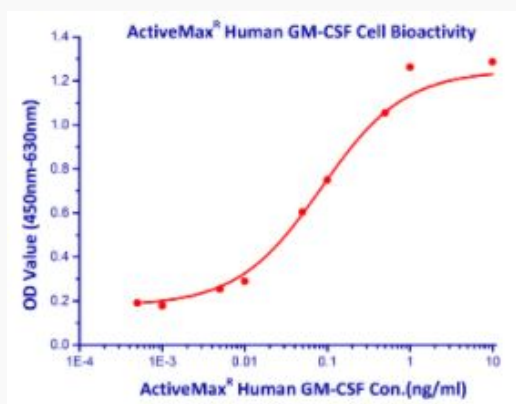
mRNA Refseq NM_000758

Protein Refseq NP_000749

MIM 138960

UniProt ID P04141

**Bioactivity-Cell
based assay of
CSF2-515H**



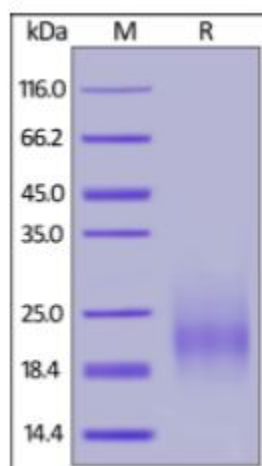
The bio-activity was determined by dose-dependent stimulation of the proliferation of TF-1 cells. The ED50 < 0.1 ng/mL, corresponding to a specific activity of > 1x10⁷ Unit/mg.

 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

SDS-PAGE of CSF2-515H



Human GM-CSF, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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