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Recombinant Mouse CSF-2/GM-CSF Protein

Catalog No.: RP01206 Recombinant 8 Publications

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	12981	P01587

Tags
N-His

Synonyms
GMCSF;CSF2

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE;≥ 90 % as determined by HPLC.

Calculated MW	Observed MW
14.95 kDa	20-35 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

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 exitthe 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 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.

Basic Information

Description
Recombinant Mouse CSF-2/GM-CSF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala18-Lys141) of mouse GM-CSF/CSF2 (Accession #NP_034099.2) fused with a 6×His tag at the N-terminus.

Bio-Activity
Measured in a cell proliferation assay using FDC-P1 cells. The ED_{50} for this effect is typically 0.04-0.17 ng/mL, corresponding to a specific activity of 5.88×10^{6}~2.5×10^{7} units/mg.

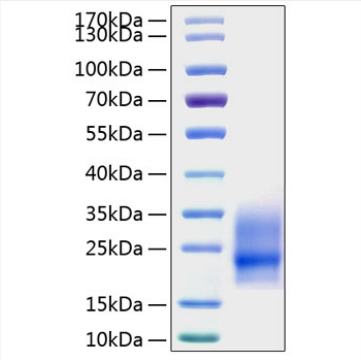
Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

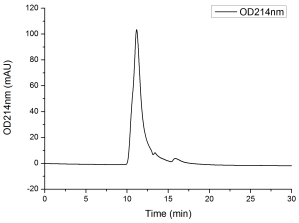
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

* 为了您的安全和健康，请穿实验服并戴一次性手套操作。

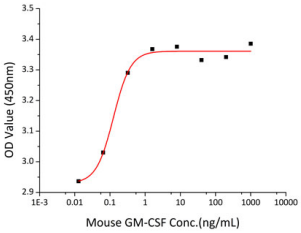
Validation Data



Recombinant Mouse CSF-2/GM-CSF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



The purity of Mouse GM-CSF/CSF2 Protein (Cat.RP01206) was greater than 90% as determined by SEC-HPLC.



Recombinant Mouse GM-CSF promotes the proliferation of FDC-P1 cells. The ED_{50} for this effect is typically 0.04-0.17 ng/mL, corresponding to a specific activity of 5.88×10^{6}~2.5×10^{7} units/mg.