

Human GM-CSF / CSF2 Protein (Fc Tag)

Catalog Number: 10015-H01H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

CSF2, GMCSF, MGC131935, MGC138897

Protein Construction:

A DNA sequence encoding the mature form of human GM-CSF (NP_000749.2) (Ala 18-Glu 144) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized CD131 at 10 µg/ml (100 µl/well) can bind recombinant human GM-CSF / Fc with a linear range of 0.032-4 µg/ml.
2. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is typically 1-5 ng/mL.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant human GM-CSF/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 364 amino acids and has a predicted molecular mass of 41 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh GM-CSF/Fc monomer is approximately 48-55 kDa due to glycosylation.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

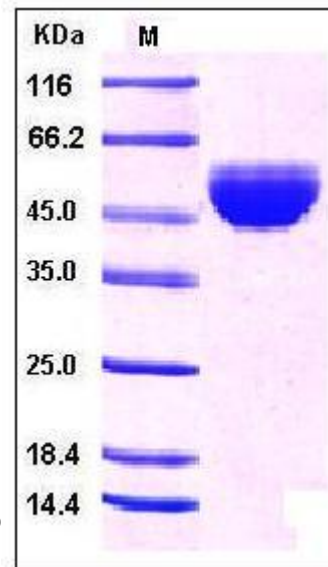
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

products.

Protein Description

Granulocyte-macrophage colony-stimulating factor (GM-CSF) is a cytokine initially characterized by its ability to induce colonies of granulocytes and macrophages from myeloid progenitor cells. GM-CSF is secreted by a variety of cell types including macrophages, T cells, mast cells, endothelial cells and fibroblasts. This cytokine has a central role in governing the proliferation, maturation, differentiation and function of granulocyte and macrophage lineage populations, as well as the migration of endothelial cells. The active form of the protein is found extracellularly as a homodimer, and the encoding gene is localized to a related gene cluster at chromosome region 5q31 which is known to be associated with 5q-syndrome and acute myelogenous leukemia. 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.

References

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2. Hamilton J.A. et al., 2002, Trends Immunol. 23: 403-408.
3. Ebner, K. et al., 2003, Blood, 102: 192-199.
4. Kato, T. et al., 2008, J. Interferon Cytokine Res. 28: 235-243.
5. Volmar, C.H. et al., 2008, Cytokine. 42: 336-344.

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