Rat GM-CSF / CSF2 Protein (His Tag)

Catalog Number: **80020-R07H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CSF2, Csfgm

Protein Construction:

A DNA sequence encoding the rat CSF2 (P48750) (Ala18-Lys144) was expressed with a polyhistidine tag at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: (32.5+65.6) % as determined by SDS-PAGE

Bio-Activity

Measured in a cell proliferation assay using FDC-P1 cells.
The ED50 for this effect is typically 0.02-0.1 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 ℃

Predicted N terminal: His

Molecular Mass:

The recombinant rat CSF2 comprises 147 amino acids and has a predicted molecular mass of 16.9 kDa. The apparent molecular mass of the protein is approximately 23 and 20 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

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.

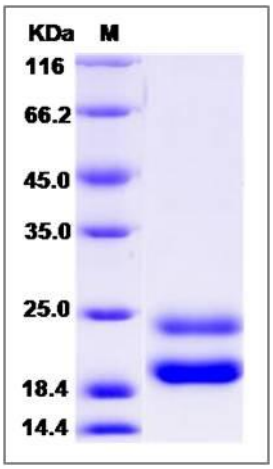
Usage Guide

Storage:

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

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the 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

1. Frolova EI. et al., 1991, Proc Natl Acad Sci. 88: 4821-4.
2. Hamilton JA. et al., 2002, Trends Immunol. 23: 403-8.
3. Ebner K. et al., 2003, Blood. 102: 192-9.
4. Kato T. et al., 2008, J Interferon Cytokine Res. 28: 235-43.
5. Volmar CH. et al., 2008, Cytokine. 42: 336-44.