



11 Park Drive, Suite 12  
Boston, MA 02215

## Human Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF, Sf9)

### ORDERING INFORMATION

Catalog No: rAP-0071;

Size: 2 µg; 10 µg

Storage: <- 20° C

### Synonyms:

CSF-2, MGI-1GM, GMCSF, Pluripoietin-alpha, Molgramostin, Sargramostim.

### Introduction:

GMCSF is a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. The active form of the protein is found extracellularly as a homodimer. This gene has been localized to a cluster of related genes at chromosome region 5q31, which is known to be associated with interstitial deletions in the 5q- syndrome and acute myelogenous leukemia. Other genes in the cluster include those encoding interleukins 4, 5, and 13.

GM-CSF stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.

### Description:

GM-CSF Human Recombinant produced in insect cells is a single, glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 14477 Dalton.

GM-CSF is fused to a C-terminal His -tag (6x His) and purified by proprietary chromatographic techniques.

### Source:

*Insect Cells*

### Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

### Formulation:

The protein was lyophilized with no additives.

### Solubility:

It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability:

Lyophilized Granulocyte Macrophage Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GMCSF should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

### Purity:

Greater than 98.0% as determined by:

1. Analysis by RP-HPLC.
2. Analysis by SDS-PAGE.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, [angioproteomie@gmail.com](mailto:angioproteomie@gmail.com)



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**Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Ala-Arg-Ser.

**Biological Activity:**

The ED50 as determined by the dose-dependant stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) is < 0.1 ng/ml, corresponding to a Specific Activity of  $1 \times 10^7$  IU/mg.

**Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.963 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequence (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of GMCSF as a Reference Standard.

**Usage:**

Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.