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## Product Data Sheet

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Product Name: GM CSF Human, Sf9  
 Cat. No.: GP20355  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Insect Cells.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	CSF-2; MGI-1GM; GMCSF; Pluripoietin-alpha; Molgramostin; Sargramostim.		
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.		
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.		
Formulation	The protein was lyophilized with PBS.		

### 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.

### Biological Activity

The ED<sub>50</sub> 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 10,000,000IU/mg.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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### Stability

Lyophilized Granulocyte Macrophage Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution GMCSF should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

GM-CSF Human Recombinant produced in insect cells is a single, glycosylated, polypeptide chain containing 127 amino acids (18-144) and having a molecular mass of 14.6kDa. GM-CSF is fused to a C-terminal His -tag (6x His) and purified by proprietary chromatographic techniques.

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