9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

GM CSF Mouse

Granulocyte Macrophage-Colony Stimulating Factor Mouse Recombinant
GRF0142

Product Overview

Name	GM CSF Mouse
Description	
Granulocyte Macrophage-Colony Stimulating Factor Mouse Recombinant	
Accession (Primary)	P01587
Synonyms	
CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, CSF2, GMCSF	
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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
GM-CSF Mouse was lyophilized with no additives.	
Stability	
Lyophilized Granulocyte Macrophage Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GM-CSF 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(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.	
Amino acid sequence	
The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Thr-Arg.	

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Biological Activity

The ED50 as determined by the dose-dependant stimulation of the proliferation of murine FDC-P1 cell line is < 0.2 ng/ml, corresponding to a Specific Activity of 5,000,000 IU/mg.

Solubility

It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 20mM AcOH (acetic Acid) not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

References

5. Title :Pre-clinical Evaluation of a CEA DNA Prime/protein Boost Vaccination Strategy Against Colorectal Cancer. Publication :Article first published online: 21 JUN 2007 DOI:10.1111/j.1365-3083.2007.01945.x Scandinavian Journal of Immunology Volume 66, Issue 1, pages 43–51, July 2007 Link : Granulocyte Macrophage-Colony Stimulating Factor prospec publication 6. Title :Intranasal Granulocyte-Macrophage Colony-Stimulating Factor Reduces the Aspergillus Burden in an Immunosuppressed Murine Model of Pulmonary Aspergillosis. Publication : First published November 2007, doi: 10.1128/?AAC.00760-07 Antimicrob. Agents Chemother. February 2008 vol. 52 no. 2 716-718 Link: Granulocyte Macrophage-Colony Stimulating Factor Mouse publication 7. Title: O-glycosylated versus non-glycosylated MUC1-derived peptides as potential targets for cytotoxic immunotherapy of carcinoma . Publications: Clinical & Experimental Immunology 143.1 (2006): 139-149. Link: GMCSF Protein prospec publication 8. Title: Novel Functions of Herbal Medicines in DendriticCells: Role of Amomi Semen in Tumor Immunity Publications: Microbiology and immunology 51.11 (2007): 1121-1133. Link: GM-CSF prospec publication 9. Title: The Herbal Medicine Compound Falcarindiol from Notopterygii Rhizoma Suppresses Dendritic Cell Maturation Publication: Journal of Pharmacology and Experimental Therapeutics 333.3 (2010): 954-960. Link: CSF-2 Protein prospec publication

Protein content

GM-CSF quantitation was carried out by two independent methods 1. UV spectroscopy at 280 nm using the absorbency value of 0.765 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of GM-CSF as a Reference Standard.

Precautions

GM CSF Mouse is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P01587)