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GM CSF Human, Pichia

Granulocyte Macrophage-Colony Stimulating Factor Human Recombinant, Pichia
GRF0138

Product Overview

Name	GM CSF Human, Pichia

Description

Granulocyte Macrophage-Colony Stimulating Factor Human Recombinant, Pichia

Accession (Primary)	P04141

Synonyms

CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, Molgramostin, Sargramostim, MGC131935, MGC138897.

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

Pichia Pastoris.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1mg/ml) solution containing 10mM phosphate buffer pH 7.0, 40 mg mannitol and 10 mg sucrose.

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 97.0% as determined by1. Analysis by RP-HPLC. 2. Analysis by SDS-PAGE.

Amino acid sequence

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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 < 0.183 ng/ml, corresponding to a Specific Activity of 5,500,000IU/mg.

Solubility

It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

GM CSF Human, Pichia is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P04141)