Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) Mouse, E. coli Recombinant Protein

Product Data Sheet

Cat. No.:	A32220005	A32220020	A32221000
Size:	5 μg	20 μg	1 mg

Description:

Our bioactive *Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) Mouse, E. coli Recombinant Protein* is a single, non-glycosylated, polypeptide chain containing 125 amino acids and a molecular mass of 14285.35 Dalton. GM-CSF Mouse is purified by proprietary chromatographic techniques.

Summary:

Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) is a monomeric glycoprotein that functions as a cytokine. It is a white blood cell growth factor. GM-CSF is a hematopoietic growth and differentiation factor that stimulates the development of neutrophils and macrophages, and promotes the proliferation and development of early erythroid megakaryocytic and eosinophilic progenitor cells. It also stimulates growth in some epithelial cells and osteoclasts. GM-CSF is produced by a variety of cell types (monocytes, endothelial cells, T-cells, fibroblasts, mitogen-stimulated B-cells, and LPS-stimulated macrophages).
Recombinant Murine GM-CSF is a 14.2 kDa globular protein consisting of 125 amino acid residues.
Human and murine GM-CSF share approx. 54% sequence homology and do not cross-react in bioactivity.

Other Names:

Murine GM-CSF, Colony-Stimulating Factor, CSF-2, CSF2, MGI-1GM, Pluripoietin-α, molgramostin, sargramostim, Csfgm, Gm-CSf, GMCSF, MGI-IGM

Source:

E. coli

Purity:

Greater than 98.0% as determined by analysis by RP-HPLC and SDS-PAGE.

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Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation:

The mouse GM-CSF was lyophilized with no additives.

Reconstitution:

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

Biological Activity:

The ED_{50} as determined by the dose-dependent 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.

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% (1 mg/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.

Shipping:

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Stability:

Lyophilized GM-CSF, 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.

Usage:

This product is intended for **Laboratory Research Use Only**. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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