GM-CSF Murine E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Murine
Other names: Granulocyte-macrophage colony stimulating factor, Molgramostin, Sargramostim, Colony-stimulating factor

Cat. No.:

RBG20075005	(5 µg)
RBG20075020	(20 µg)
RBG20075100	(100 µg)

Description

GM-CSF is a hematopoietic growth factor that stimulates the development of neutrophils and macrophages, and promotes the proliferation and development of early erythroid megakaryocytic and eosinophilic progenitor cells. It is produced in endothelial cells, monocytes, fibroblasts and T-lymphocytes. GM-CSF inhibits neutrophil migration and enhances the functional activity of the mature end-cells. The human and murine molecules are species-specific and exhibit no cross-species reactivity. Recombinant Murine GM-CSF is a 14.2 kDa globular protein consisting of 125 amino acid residues.

Introduction to the Molecule

GM-CSF is a small glycoprotein growth factor which stimulates the production and function of neutrophils, eosinophils and monocytes. It can be produced by a wide variety of tissue types. The biological effects of GM-CSF are mediated through its binding to cell surface receptors, which appear to be widely expressed by thermatopoietic cells and also by some non-thermatopoietic cells, such as endothelial cells.

Research topic

Animal studies, Cytokines and chemokines and related molecules

Amino Acid Sequence

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MAPTRSPITV TRPWKHVEAI KEALNLLDDM PVTLNEEVEV VSNEFSFKKL TCVQTRLKIF EQGLRGNFTK LKGALNMTAS
YYQTYCPPTP ETDCETQVTT YADFIDSLKT FLTDIPFECK KPVQK
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Source

E. coli

Purity

98%

Biological Activity

The ED_{50} as determined by the dose-dependent stimulation of the proliferation of murine FDC-P1 cells is ? 0.05 ng/ml, corresponding to a specific activity of ? 2×10^{7} units/mg.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: Web:	info@biovendor.com sales@biovendor.com www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail:	infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail:	infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail:	infoUSA@biovendor.com