

## GM-CSF Rat E. coli

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> E. coli	RBG30058005	(5 µg)
<b>Species:</b> Rat	RBG30058020	(20 µg)
<b>Other names:</b> Granulocyte-macrophage colony stimulating factor, Molgramostin, Sargramostim, Colony-stimulating factor	RBG30058100	(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 by 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 Rat GM-CSF is a 14.5 kDa globular protein consisting of 128 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

MAPTRSPNPV TRPWKHVDI KEALSLNDM RALENEKNED VDIISNEFSI QRPTCVQTRL KLYKQGLRGN LTKLNGALTM  
IASHYQTNCP PTPETDCEIE VTTFEDFIKN LKGFLFDIPF DCWKPVQK

### Source

E. coli

### Purity

98%

### Biological Activity

The ED<sub>50</sub> was determined by the dose-dependent stimulation of the proliferation of Murine FDC-P1 cells is ? 0.01 ng/ml, corresponding to a specific activity of ? 1.0×10<sup>8</sup> 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

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