

**GM-CSF**  
**Catalog # PVGS1027****Specification**

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**GM-CSF - Product Information**

Primary Accession [P04141](#)  
**Species**  
Human

**Sequence**  
Ala18-Glu144, expressed with an N-terminal Met

**Purity**  
> 95% as analyzed by SDS-PAGE

**Endotoxin Level**  
< 1 EU/ µg of protein by gel clotting method

**Biological Activity**  
ED<sub>50</sub> < 0.5 ng/ml, measured by proliferation assay of TF-1 cells, corresponding to a specific activity of > 2.0 × 10<sup>6</sup> units/mg

**Expression System**  
E. coli

Formulation **Lyophilized after extensive dialysis against 10 mM PB, pH 7.0.**

**Reconstitution**  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH<sub>2</sub>O up to 100 µg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

**GM-CSF - Additional Information**

**Gene ID** 1437

**Other Names**  
Granulocyte-macrophage colony-stimulating factor, GM-CSF, Colony-stimulating factor, CSF, Molgramostin, Sargramostim, CSF2, GMCSF

**Target Background**  
Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors. Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) is produced by a

number of different cell types, including activated T cells, B cells, macrophages, mast cells, endothelial cells, and fibroblasts, in response to cytokine of immune and inflammatory stimuli. Besides granulocyte-macrophage progenitors, Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) is a growth factor for erythroid, megakaryocyte, and eosinophil progenitors. On mature hematopoietic, monocytes/macrophages and eosinophils. Human Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) can induce human endothelial cells to migrate and proliferate. Additionally, Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) can stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma, and adenocarcinoma cell lines.

## **GM-CSF - Protein Information**

**Name** CSF2

**Synonyms** GMCSF

### **Function**

Cytokine that stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.

### **Cellular Location**

Secreted

## **GM-CSF - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **GM-CSF - Images**