

Rev03 DATASHEET

Update: Dec,14,2021

## **GM-CSF**, Human (P. pastoris-expressed)

Cat. No.: Z02190

## **Product Introduction**

Species	Human
Protein Construction	GM-CSF (Ala18-Glu144) Accession # P04141
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by RP-HPLC
Endotoxin Level	< 1 EU/µg of protein by LAL method
Biological Activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 6-30 pg/mL.
<b>Expression System</b>	P. pastoris
Theoretical Molecular Weight	14.4 kDa
Apparent Molecular Weight	~24-35 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution in 10 mM Tris-HCl, 4% Mannitol, 1% Sucrose, pH 8.5.
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 distilled water up to 100 $\mu g/ml$ .
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

## **Background**



**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.

**Synonyms:** Granulocyte Macrophage Colony Stimulating Factor; CSF-2; MGI-1GM; GM-CSF; Pluripoietin-alpha; Molgramostin; Sargramostim; MGC131935; MGC138897

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