



## GM-CSF

E21-003

**Catalog Number:**E21-003

**Amount:**10ug

**Altername:**Granulocyte-Macrophage Colony-Stimulating Factor; GM-CSF; Colony-Stimulating Factor; CSF; Molgramostin; Sargramostim; CSF2; GMCSF

**Storage/Stability:**Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**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. It 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, GM-CSF is also a growth factor for erythroid, megakaryocyte and eosinophil progenitors. On mature hematopoietic, monocytes/ macrophages and eosinophils. GM-CSF has a functional role on non-hematopoietic cells. It can induce human endothelial cells to migrate and proliferate. Additionally, GM-CSF can also stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines.

**Species:**Human

**Reconstitution:**Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin:**Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.

**Purity:**Greater than 95% as determined by reducing SDS-PAGE.

**Description:**Recombinant Human Granulocyte-Macrophage Colony-Stimulating Factor is produced by our E.coli expression system and the target gene encoding Ala18-Glu144 is expressed.

**Product State:**Lyophilized

**Ship Description:**The product is shipped at ambient temperature.

**Formulation:**Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 5% Mannitol, pH 7.2.

**Expression system:**E.coli

**For Research Use Only**

