Recombinant Human GM-CSF

Catalog Number	Size
AG111-10	10μg
AG111-50	50μg

Specifications and Use

Description Recombinant human GM-CSF is a 127-aa single polypeptide from *E. coli*. It contains two pairs of disulfide bonds and the molecular mass is approximately 14.5 kDa.

Source *E. coli.*

Molecular Mass Approximately 14.5kDa.

Purity ≥97%, as determined by SDS-PAGE and HPLC method.

Endotoxin Level ≤1EU/μg, determined by the LAL method.

Biological Activity The specific activity is more than 1×10^7IU/mg, measured in a cell proliferation assay using the factor-dependent cell line, TF-1,

Formulation Lyophilized from a 0.2μm filtered solution in 10mM Phosphate Buffer.

Reconstitution It is recommended that sterile ddH2O containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of not less than 1μg/ml of the cytokine.

Storage Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C.
The reconstituted samples can be stored under sterile conditions at 2- 8°C for one month or at -20°C to -70°C for three months without detectable loss of activity.
Avoid repeated freeze-thaw cycles.

Human 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 or immune and inflammatory stimuli. Besides granulocyte-macrophage progenitors, GM-CSF is also a growth factor for erythroid, megakaryocyte and eosinophil progenitors. On mature hematopoietic cells, GM-CSF is a survival factor for and activates the effector functions of granulocytes, monocytes/macrophages and eosinophils. GM-CSF has also been reported to have 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. GM-CSF is species specific and human GM-CSF has no biological effects on Mouse cells.

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