DATASHEET

Recombinant Human GM-CSF Catalog Number: SJA01
Strength: 10µg, 50µg

Specifications and Use

Description - Recombinant human GM-CSF produced in E.coli is a single, non-glycosylated, polypeptide chain containing 127 amino acids, two pairs of disulfide bonds and having a molecular mass of approximately 14.5kD.
Source - E. coli.
Molecular Mass - Approximately 14.5kD.
Purity - ≥97%, as determined by SDS-PAGE and HPLC method.
Endotoxin Level - ≤1EU/µg, determined by the LAL method.
Biological Activity - Measured in a cell proliferation assay using the factor-dependent cell line, TF-1,the specific activity shall be not less than 1×107IU/mg.
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.
■ Upon reconstitution, this cytokine can be stored under sterile conditions at 2-8˚C for one month or at -20˚C to -70˚C **in a manual defrost freezer** 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.

FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.

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