

bio-risk-free | not for human use | for research only | not for diagnostic or therapeutic use

GM-CSF, human, recombinant

Catalog Number: 01-AR080 LOT NUMBER: OR-0-008-8118 AVAILABLE SIZES: 10 µg 50 µg 100 µg 1000 µg

DESCRIPTION

Granulocyte macrophage colony-stimulating factor (GM-CSF) is a hematopoietic growth factor produced by various cell types such as T and B cells, macrophages, endothelial cells and fibroblasts, in response to cytokine or inflammatory stimuli. GM-CSF stimulates the development of granulocytes and macrophages, and the proliferation and development of erythroid, megakaryocyte and eosinophil progenitors. It also enhances functional activity of mature hematopoietic cells. GM-CSF is of great clinical value in reconstitution of the hematopoietic system following cancer therapy or bone marrow transplantation.

SOURCE

ISOkine™ recombinant human GM-CSF is produced in rice suspension cells (*Oryza sativa* L. cv. Dongjin).

FORMULATION

Sterile filtered through a 0,2 µm filter. Lyophilized from PBS, pH 7.2

PURITY

Greater than 95% by SDS-PAGE gel analysis.

RECONSTITUTION

Note: Always centrifuge the vial before opening. It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

STABILITY

The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

BIOLOGICAL ACTIVITY

Each batch of ISOkine™ growth factor is tested for bioactivity and verified to have comparable activity to a commercial source. Bioactivity of recombinant ISOkine™ human GM-CSF is measured by its dose-dependent effect on the proliferation of TF-1 cells. The ED50 for this effect is typically below 0.2 ng/ml corresponding to specific activity of > 5 x 10⁶ U/mg. We recommend that the optimal concentration for each specific application be determined by an initial dose-response assay.

ENDOTOXIN LEVEL

Endotoxin level is less than 0.005ng per µg of ISOkine™ product (0.05EU/µg) as measured by LAL assay.

MOLECULAR WEIGHT

Recombinant human GM-CSF contains 127 amino acids in protein and no amino acid in tag. MW is 14kDa without glycosylation and around 26kDa with glycosylation.

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