

## PRODUCT DATA SHEET



Bioworld Technology, Inc.

### Recombinant Human Granulocyte Macrophage Colony Stimulating Factor (rHuGM-CSF)

Catalog Number: PR1035

Source: Escherichia coli.

Quantity: 5µg/20µg/1.0mg

#### Description

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.

#### Molecular Weight:

Approximately 14.6 kDa, a single non-glycosylated polypeptide chain containing 128 amino acids.

#### Purity:

>96% by SDS-PAGE and HPLC analyses.

#### Biological Activity:

Fully biologically active when compared to standard. The ED50 as calculated by the dose-dependant stimulation of the proliferation of human TF-1 cells is less than 0.1 ng/ml, corresponding to a Specific Activity of  $\square 1 \times 10^7$  IU/mg.

#### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

#### Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

#### AA Sequence:

M A P A R S P S P S T Q P W E H V N A I Q E A R R L L  
N L S R D T A A E M N E T V E V I S E M F D L Q E P T  
C L Q T R L E L Y K Q G L R G S L T K L K G P L T M M  
A S H Y K Q H C P P T P E T S C A T Q I I T F E S F K E  
N L K D F L L V I P F D C W E P V Q E

#### Endotoxin:

Less than 1EU/mg of rHuGM-CSF as determined by LAL method.

#### Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

#### Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

#### Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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