

**ANTIGENIX AMERICA Inc.**  
**1-800-558-1008**  
**PRODUCT INFORMATION SUMMARY**

**Human GM-CSF**

PRODUCT NUMBER HC88822B Purified factor 10 ug  
HC88822A Purified factor 2 ug

**DESCRIPTION:**

Human Granulocyte Macrophage Colony-Stimulating Factor (GM-CSF) is a growth factor that stimulates bone marrow cells, especially granulocytes and macrophages. Human GM-CSF has molecular weight of 14.0 kDa with 123 amino acid residues.

**SOURCE:** E. Coli

Purity greater than 98% by HPLC analysis

Endotoxin level < 0.1 ng per ug GM-CSF.

Sterile-filtered from 10 mM Sodium Citrate, pH 3.5, lyophilized and additive-free.

**HANDLING AND STORAGE:**

Provided as lyophilized protein. Human GM-CSF should be reconstituted in sterile or distilled water to concentration of 100 ug/mL. Further dilute in PBS or other buffered solutions. This can be stored in small aliquots at -20° C. for long-term storage. **Microcentrifuge before reconstitution.** Because ANTIGENIX AMERICA factors are provided carrier-protein free, the small quantities of lyophilized protein can adhere to the sides of the vial. **Before opening vial,** we recommend microcentrifuging for 30 seconds to spin-down all material.

**BIOACTIVITY:**

Fully biologically active as compared to standards. Specific activity corresponding to  $1 \times 10^7$  units/mg (0.1 ng/mL). Units as determined by dose dependant stimulation of Human TF-1 cells

**WARRANTY:**

Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product.

**FOR RESEARCH USE ONLY. NOT FOR THERAPEUTIC OR DRUG USE.**