

## CERTIFICATE OF ANALYSIS

### Product Information

Product Name: GM-CSF, Human

Cat. No.: Z02695-10; Z02695-50; Z02695-1

Lot No.: P50041504

Size: 10 µg/vial; 50 µg/vial; 1 mg/vial

Storage Condition: Lyophilized recombinant human Granulocyte Macrophage Colony Stimulating Factor (rhGM-CSF) remains stable up to 12 months at lower than -70°C from date of receipt. Upon reconstitution, rhGM-CSF should be stable up to 4 weeks at 4°C or up to 6 months at -20°C.

### Quality Control

Test Items	Specifications	Results
Physical Appearance	White Freeze-dried Powder	Conformed
Purity (SDS-PAGE&HPLC)	> 95%	Conformed
Biological Activity (ED <sub>50</sub> )	< 0.5 ng/mL	Conformed
Molecular Weight	14 kDa	Conformed
Bacterial Endotoxin	< 1 EU/µg	Conformed

### Caution:

For laboratory use only. Not for household use. If you have any questions about the Certificate of Analysis, please contact our customer service representative at 1-877-436-7274 (Toll-Free), or 1-732-885-9188.

Certified by: Joe Wang Date: 7/11/2015  
Protein Products Department