

## CERTIFICATE OF ANALYSIS

### Product Information

Product Name: GM-CSF, Human

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

Lot No.: P50121409

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

Storage Condition: Lyophilized recombinant human GM-CSF (rhGM-CSF) remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rhGM-CSF remains stable up to 2 weeks at 4°C or up to 3 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	0.49ng/mL
Molecular Weight	14 kDa	Conformed
Bacterial Endotoxin	< 0.2 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: 10/20/2014  
Protein Products Department