

## CERTIFICATE OF ANALYSIS

### Product Information

Product Name: Granulocyte Macrophage Colony Stimulating Factor, Mouse

Cat. No.: Z03300-10; Z03300-50; Z03300-1

Lot No.: P50041507

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

Storage Condition: Lyophilized recombinant Mouse GM-CSF remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, Mouse GM-CSF should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) can be added. Avoid repeated freeze-thaw cycles.

### Quality Control

Test Items	Specifications	Results
Physical Appearance	White Freeze-dried Powder	Conformed
Purity (SDS-PAGE&HPLC)	> 98%	Conformed
Biological Activity (ED <sub>50</sub> )	<5 pg/ml	Conformed
Molecular Weight	14.3 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: 07/15/2015  
Protein Products Department