

CERTIFICATE OF ANALYSIS

Product Information

Product Name: M-CSF, Human

Cat. No.: Z02914-10; Z02914-50; Z02914-1

Lot No.: P50031506

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

Storage Condition: Lyophilized recombinant human Macrophage Colony-

Stimulating Factor 1 (rhM-CSF) remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rhM-CSF should be stable up to 2 weeks at 4°C or up to 3 months at -20°C under sterile conditions. 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) | > 95% | Conformed |
| Biological Activity (ED ₅₀) | 1-3 ng/ml | 2.15 ng/ml |
| Molecular Weight | 28 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:

Date: 12/17/2015

Protein Products Department