

CERTIFICATE OF ANALYSIS

Product name:	Recombinant Human GM-CSF (rHuGM-CSF)
Catalog:	AC52378
Size:	100 µg
Lot:	5049230921
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 14 kDa, a single non-glycosylated polypeptide chain containing 143 amino acids.
Description:	Accession # P04141.1, Ala18-Glu144, with an N terminal Ala.
SDS-PAGE:	14 kDa, under reducing conditions
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H ₂ O. Stock solutions should be apportioned into working aliquots and stored at -20 °C to -70 °C. Further dilutions should be made in appropriate buffered solutions. Do not reconstitute in cell culture media directly.
Shipping:	The product is shipped at 2 °C to 8 °C. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <p>A minimum of 12 months from date of shipping when stored at -20 °C to -70 °C as supplied.</p> <p>4 weeks at 2 °C to 8 °C under sterile conditions after reconstitution.</p> <p>4 months at -20 °C to -70 °C under sterile conditions after reconstitution.</p>

Quality control assays		
Test	Standard	Result
Endotoxin	< 0.1 EU/µg	Pass
Purity	> 95%	Pass
Sterility	Negative	Pass
Bioactivity-ELISA	Immobilized Recombinant Human GM-CSF (Catalog # AC52378) at 0.2 µg/well can bind Human GM-CSF R alpha with a linear range of 463.6 to 646.6 ng/mL.	Pass
Bioactivity-Cell based assay	Recombinant Human GM-CSF (Catalog # AC52378) stimulates proliferation of TF-1 human erythroleukemic cells, the EC50 for this effect is 0.009800 to 0.01551 ng/mL.	Pass

This product lot has passed Acnovia's QC testing.



For research use only.