

Certificate of Analysis

Description: Recombinant Granulocyte Macrophage Colony Stimulating Factor (Human)

Expiry Date: 06-16-2016

Cat #: HEOPP-07042

Lot #: K10203061

Size: 20 µg/vial

Test Parameters	Specification	Result
Purity ¹	Sample must exhibit >98% purity.	98.23%
Biological Activity ²	The ED ₅₀ must be less than 0.1 ng/mL, corresponding to a specific activity of >1.0 x 10 ⁷ IU/mg.	2.21 x 10 ⁷ IU/mg
Molecular Weight ³	Sample must have a molecular weight of 14.5 ± 1.5 kDa.	Pass
Endotoxin ⁴	Results must show ≤ 1.0 EU/µg.	≤ 0.05 EU/µg
Physical Appearance	Sample must have a white, lyophilized powder appearance.	Pass

Notes:

1. The sample is assayed for purity by SDS-PAGE and HPLC analyses.
2. The ED₅₀ is determined by a cell proliferation assay using human TF-1 cells.
3. The sample is tested for molecular weight using SDS-PAGE.
4. The sample is tested for endotoxin contamination with LAL test.



Jane Chen
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Jun 24, 2014