

Product Information

Catalog Number	KD-021
Species	Human
Protein Construction	GM-CSF (Ala18-Glu144), Accession # P04141
Tag	No tag
Expression System	HEK 293
Purity	> 95% as determined by SDS-PAGE
Predicted Molecular Mass	14.5 kDa
SDS-PAGE	19-25 kDa, under reducing conditions
Endotoxin	<0.1 EU/μg of the protein by the LAL method
Biological Activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is <0.15 ng/mL.
Formulation	Lyophilized from a 0.22μm filtered solution in 7.8mM Na ₂ HP04, 1.5mM KH ₂ PO4, 2.7mM KCl, 500mM NaCl, pH 7.4
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder at 100 μg/mL in sterile deionized water
Storage & Stability	Use a manual defrost freezer and avoid repeated freeze-thaw cycles 12 months from date of receipt, at lower than -70 °C as supplied 1 week, 2 to 8 °C under sterile conditions after reconstitution 1 month, -20 to -70 °C under sterile conditions after reconstitution
Usage	Research use only

Product Data

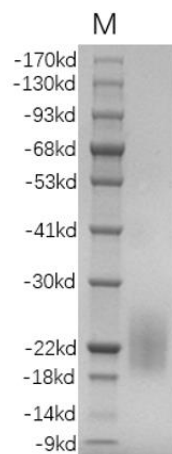


Figure 1. SDS-PAGE analysis with 2 µg recombinant human GM-CSF per lane, under reducing conditions, showing bands at 19-25 kDa

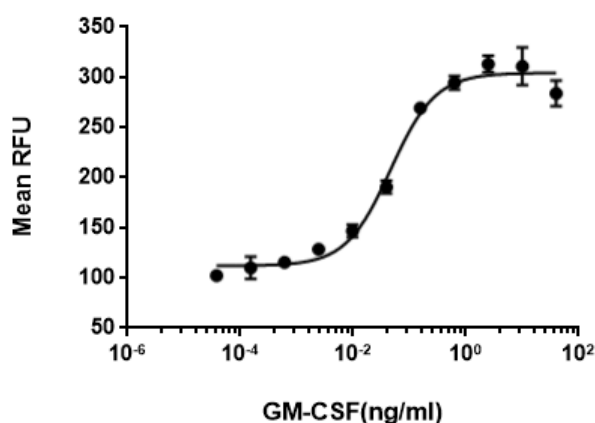


Figure 2. Biological activity measured in a cell proliferation assay using TF-1 cells, ED50 for this effect is <0.15 ng/mL

Background

Granulocyte-macrophage colony-stimulating factor (GM-CSF) was initially classified as a hematopoietic growth factor. It is produced by a number of different cell types, including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts in response to cytokine of immune and inflammatory stimuli.

GM-CSF is a vital immune system messenger that drives the production and activation of key white blood cells. Its synthetic form is a valuable medical tool primarily used to help patients recover their immune function after chemotherapy or a bone marrow transplant. Its use is a balance between achieving a beneficial immune boost and managing its potentially significant inflammatory side effects.