Datasheet

Cat. No. P1013

GM-CSF, murine recombinant

Information

Gene ID	12981
Accession #	P01587
Alternate Names	Granulocyte/Macrophage Colony-Stimulating Factor, CSF-2, MGI-1GM, Pluripoietin-α
Source	*Escherichia coli.*
M.Wt	Recombinant murine GM-CSF is a 14.1 kDa globular protein consisting of 124 amino acids residues.
AA Sequence	APTRSPITVT RPWKHVEAIK EALNLLDDMP VTLNEEVEVV SNEFSFKKLT CVQTRLKIFE QGLRGNFTKL KGALNMTASY YQTYCPPTPE TDCETQVTTY ADFIDSLKTF LTDIPFECKK PGQK
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using murine FDC-P1 cells is less than 0.05 ng/ml, corresponding to a specific activity of > 2.0×10^7 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 μg	100 μg	500 μg
GM-CSF, murine recombinant	5 μg	100 μg	500 μg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuGM-CSF as determined by LAL method.

Description

Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF) is secreted by a number of different cell types (including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts) in response to cytokine or immune and inflammatory stimulation. It was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors and has functions of stimulates the growth and differentiation of hematopoietic precursor cells from various lineages. GM-CSF has also been reported to have a functional role on non-hematopoietic cells and can induce human endothelial cells to migrate and proliferate. Additionally, it can stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines. Mouse GM-CSF shares 54 % sequences identity with human GM-CSF, but has no biological effects across species. GM-CSF is used as a medication to stimulate the production of white blood cells following chemotherapy and has also recently been evaluated in clinical trials for its potential as a vaccine adjuvant in HIV-infected patients.

Reference

1. Wang JM, Chen ZG, Colotta F, et al. 1988. Behring Inst Mitt: 270-3.

2. 1989. N Engl J Med, 320: 253-4.

3. Nissen-Druey C. 1989. Nouv Rev Fr Hematol, 31: 99-101.

4. Eager RandNemunaitis J. 2005. Mol Ther, 12: 18-27.

5. Tran T, Fernandes DJ, Schuliga M, et al. 2005. Br J Pharmacol, 145: 123-31.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com