

# Technical Data Sheet

## **Flogen<sup>®</sup> Recombinant Rat Granulocyte-Macrophage Colony Stimulating Factor (rRtGM-CSF)**

<b>Catalog Number:</b>	PGR00142-003
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 14.5 kDa, a single non-glycosylated polypeptide chain containing 127 amino acids.
<b>Quantity:</b>	5µg/20µg/1000µg
<b>AA Sequence:</b>	APTRSPNPVT RPWKHVDAIK EALSLLNDR ALENEKNEDV DIISNEFSIQ RPTCVQTRLK LYKQGLRGNL TKLNGALTMI ASHYQTNCP TPETDCEIEV TTFEDFIKLN KGFLFDIPFD CWKPVQK
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine FDC-P1 is less than 0.01 ng/ml, corresponding to a specific activity of > 1.0 × 10 <sup>8</sup> IU/mg.
<b>Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/µg of rRtGM-CSF as determined by LAL method.
<b>Reconstitution:</b>	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.
<b>Storage:</b>	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.
<b>Usage:</b>	For research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

### **Rat Granulocyte-Macrophage Colony Stimulating Factor**

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. It is reported that GM-CSF has no biological effects across species.