Growth Factor Data Sheet

GoldBio growth factors are manufactured for RESEARCH USE ONLY and cannot be sold for human consumption!

Colony Stimulating Factor 2 (CSF2), previously called 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. CSF2 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 CSF2 has no biological effects across species.

Catalog Number **Product Name**	**1420-03** **CSF2 (GM-CSF), Canine** Recombinant Canine Colony Stimulating Factor 2 (granulocyte-macrophage) Granulocyte-Macrophage Colony Stimulating Factor, GM-CSF Molgramostin MGI-1GM (Macrophage granulocyte inducer-1GM)
Source	*Escherichia coli*
MW	~14.2 kDa (127 amino acids)
Sequence	APTRSPTLVT RPSQHVDAIQ EALSLLNNSN DVTAVMNKAV KVVSEVFDPE GPTCLETRLQ LYKEGLQGSL TSLKNPLTMM ANHYKQHCPP TPESPCATQN INFKSFKENL KDFLFNIPFD CWKPVKK
Accession Number	P48749
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using human TF-1 cells is less than 5 ng/ml, corresponding to a specific activity of $>2.0\times10^5$ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.