

Overview

Synonyms	Granulocyte Macrophage Colony Stimulating Factor, CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, Molgramostin, Sargramostim, MGC131935, MGC138897
Description	Human Granulocyte Macrophage Colony Stimulating Factor (hGM-CSF) , a hematopoietic growth factor, is mainly involved in granulopoiesis and monocytopoiesis. It is produced by T-cells and macrophages in response to antigens, and by endothelial cells and fibroblasts following induction of various cytokines ^[1] . A monomeric protein of 127 amino acids with six glycosylation sites and two intra disulfide bonds ^[2,3] , glycosylated and non-glycosylated hGM-CSFs show similar biological activities ^[4] . Other than its connection to the growth and development of granulocytes and macrophages, it is also indispensable for the proliferation of erythroid and megakaryocytic cells ^[5] . Recombinant human Granulocyte Macrophage Colony Stimulating Factor (rhGM-CSF) produced in <i>E. coli</i> is a non-glycosylated polypeptide. A fully biologically active molecule, rhGM-CSF has a molecular mass of 14 kDa analyzed by SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques.
Species Source	Human <i>E. coli</i>
Biological Activity	ED ₅₀ < 0.5 ng/ml, measured by proliferation assay of TF-1 cells, corresponding to a specific activity of >2.0 x 10 ⁶ units/mg
Sequence	MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDTAEMNET VEVISEMFDL QEPTCLQTRL ELYKQGLRGS LTKLKGPLTM MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF DCWEPVQE

Properties

Measured Molecular Weight	14 kDa, observed by SDS-PAGE.
Purity	>95 % as analyzed by SDS-PAGE.
Formulation	Lyophilized after extensive dialysis against 10 mM PB, pH7.0.
Reconstitution	Reconstituted in ddH ₂ O at 100µg/ml.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant human Granulocyte Macrophage Colony Stimulating Factor (rhGM-CSF) remains stable up to 12 months at lower than -70°C from date of receipt. Upon reconstitution, rhGM-CSF should be stable up to 4 weeks at 4°C or up to 6 months at -20°C.
Note	For research use only

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