

GM-CSF, Human

Cat. No.: Z02695-50

Size: 50.0 ug

Synonyms: Granulocyte Macrophage Colony Stimulating Factor, CSF-2, MGI-1GM, GM-CSF, Pluripotin-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 *E. coli* 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 at GenScript.

Amino Acid Sequence:

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00001 MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDTAAEMNET
00041 VEVISEMFDL QEPPTCLQTRL ELYKQGLRGS LTKLKGPLTM
00081 MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF
00121 DCWEPVQE
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Source: *E. coli*

Species: Human

Biological Activity: ED₅₀ < 0.5 ng/ml, measured by proliferation assay of TF-1 cells, corresponding to a specific activity of >2.0 x 10⁶ units/mg

Molecular Weight: 14 kDa, observed by SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against 10 mM PB, pH7.0.

Reconstitution: Reconstituted in ddH₂O at 100μg/ml.

Purity: >95 % as analyzed by SDS-PAGE.

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.