

Recombinant human GM-CSF protein

Catalog Number: MSF0501

PRODUCT INFORMATION

Expression system

E.coli

Domain

18-144aa

UniProt No.

P04141

NCBI Accession No.

NP_000749

Alternative Names

Granulocyte-macrophage colony stimulating factor, CSF2, GMCSF, GM-CSF, GM-CSF, Colony-stimulating factor, CSF, Sargramostim, Molgramostin, Granulocyte-macrophage colony-stimulating factor, Granulocyte-macrophage colony stimulating factor Burst Promoting Activity, CMCSF, Colony stimulating factor, Colony Stimulating Factor 2, CSF 2, CSF Alpha, Eosinophil Colony Stimulating Factor, Granulocyte Macrophage Colony Stimulating Factor, MGC131935, MGC138897, Pluripoietin Alpha,

PRODUCT SPECIFICATION

Molecular Weight

14.6 kDa (128aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 range \leq 50pg/ml.

Tag

Non-Tagged

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Human GM-CSF is a 14.6 kDa globular protein consisting of 128 amino acid containing two disulfide bonds. GM-CSF is a hematopoietic growth factor that stimulates the development of neutrophils and macrophages and promotes the proliferation and development of early erythroid megakaryocytic and eosinophilic progenitor cells. It is produced in by endothelial cells, monocytes, fibroblasts and T-lymphocytes. GM-CSF inhibits neutrophil migration and enhances the functional activity of the mature end-cells. Recombinant human GM-CSF was expressed in *E. coli* and purified by conventional chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

Amino acid Sequence

MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDAAEMNET VEVISEMFDL QEPTCLQTRL ELYKQGLRGS LTKLKGPLTM
MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF DCWEPVQE

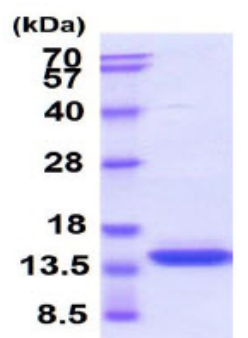
General References

Trapnell BC, et al. (2002) *Annu Rev Physiol.* 64, 775-80

Wong GG, et al (1985) *Science*, 228, 810-815

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Biological Activity

Human GM-CSF in a cell proliferation assay using TF-1 human erythroleukemic cell. The ED50 range ≤ 50 pg/ml.

