

Recombinant human M-CSF protein

Catalog Number: ATGP3565

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

33-255aa

UniProt No.

P09603

NCBI Accession No.

NP_000748

Alternative Names

Macrophage colony-stimulating factor 1, CSF1, M-CSF, MCSF, Lanimostim, ATGP3269

Additional Information

ATGP3269 has been replaced with a catalog number ATGP3565.

PRODUCT SPECIFICATION

Molecular Weight

26.1 kDa (231aa)

Concentration

0.25mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

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 M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 range \leq 3ng/ml.

Tag

His-Tag

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

CSF1, also known as macrophage colony-stimulating factor 1, is a hematopoietic growth factor that is the primary regulator of the survival, proliferation, differentiation and function of mononuclear phagocytes. It is a four alpha-helical bundle cytokine and its active form is found extracellularly as a disulfide linked homodimer. This protein plays important roles in innate immunity, cancer and inflammatory diseases, including systemic lupus erythematosus, arthritis, atherosclerosis and obesity. In several conditions, activation of macrophages involves a CSF1 autocrine loop. In addition, secreted and cell-surface isoforms of CSF1 can have differential effects in inflammation and immunity. Recombinant human CSF1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

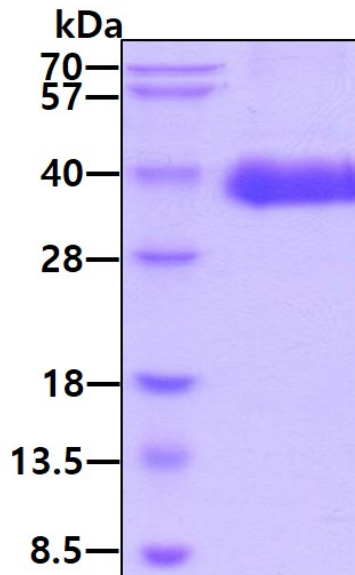
EEVSEYCSHM IGSGLHQLSLQ RLIDSQMETS CQITFEFVDQ EQLKDPVCYL KKAFLLVQDI MEDTMRFRDN TPNAIAIVQL
QELSLRLKSC FTKDYEEHDK ACVRTFYETP LQLLEKVKNV FNETKNLLDK DWNIFSKNCN NSFAECSSQD VVTKPDCNCL
YPKAIPSSDP ASVSPHQPLA PSMAPVAGLT WEDSEGTEGS SLLPGEQPLH TVDPGSAKQR PPR<LEHHHHH H>

General References

- Chitu V., et al. (2006) *Curr Opin Immunol.* 18(1):39-48.
Eda H., et al. (2010) *Cytokine.* 52(3):215-220.
Tian F., et al. (2013) *Oncol. Res.* 20(8):341-350.

DATA

SDS-PAGE

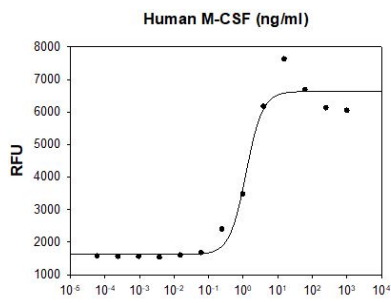


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Biological Activity

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Human M-CSF stimulates cell proliferation of the M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 range ≤ 3 ng/ml.