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

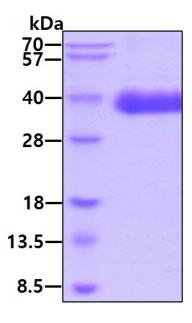
### **General References**

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**



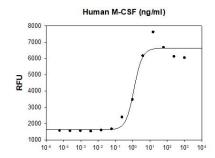
3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.



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

