

# Recombinant mouse M-CSF protein

Catalog Number: ATGP3904

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

33-187aa

### UniProt No.

P07141

### NCBI Accession No.

NP\_031804

### Alternative Names

M-Csf, Macrophage colony-stimulating factor 1, CSF-1, MCSF, Csf1, C87615, MCSF, op, Processedmacrophage colony-stimulating factor 1

## PRODUCT SPECIFICATION

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### Molecular Weight

19.1 kDa (164aa)

### Concentration

1mg/ml (determined by absorbance at 280nm)

### Formulation

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

### Purity

> 90% 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 for this effect is  $\leq 4$ ng/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

M-CSF, also known as macrophage colony-stimulating factor 1 isoform 1, is one of the hematopoietic growth factors that regulate the growth and differentiation of blood cells. This protein is produced by monocytes, granulocytes, endothelial cells, and fibroblasts. It stimulates the formation of macrophage colonies, enhances antibody-dependent, cell-mediated cytotoxicity by monocytes and macrophages, and inhibits bone resorption by osteoclasts. It plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. This protein promotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and inflammatory processes. Recombinant mouse M-CSF, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

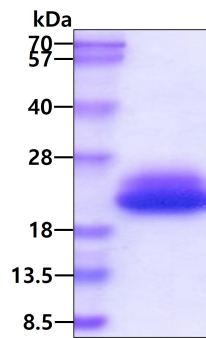
<ADP>KEVSEHC SHMIGNHGLK VLQQLIDSQM ETSCQIAFEF VDQEQLDDPV CYLKKAFFLV QDIIDETMRF KDNTPNANAT ERLQELSNL NSCFTKDYEE QNKACVRTFH ETPLQLLEKI KNFFNETKNL LEKDWNIPTK NCNNSFAKCS SRDVVTKP<HH HHHH>

### General References

Richardsen E., et al. (2018) Anticancer Res. 35(2):865-874.  
 Braza MS., et al. (2018) Am J Transplant. 18:1247-1255.

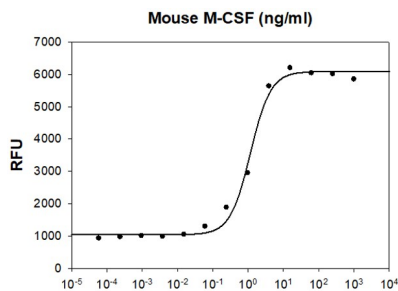
## DATA

### SDS-PAGE



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

### Biological Activity



Mouse M-CSF stimulates cell proliferation of the M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 range is ≤4 ng/ml.