

# Recombinant Mouse CSF-1/M-CSF Protein

**Catalog No.:** RP01216S **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	12977	P07141-1

**Tags**  
No-Tag

**Synonyms**  
MCSF;M-CSF;CSF-1;Lanimostim;CSF1

## Product Information

Source	Purification
HEK293 cells	

Calculated MW	Observed MW
21.44 kDa	20-25 kDa

**Endotoxin**  
< 0.01 EU/μg of the protein by LAL method.

**Formulation**  
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

**Reconstitution**  
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

	400-999-6126
	cn.market@abclonal.com.cn
	www.abclonal.com.cn

## Background

Macrophage colony-stimulating factor 1, also known as CSF-1, M-CSF, is a single-pass membrane protein which is disulfide-linked as a homodimer or heterodimer. Granulocyte / macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. M-CSF/CSF-1 is known to facilitate monocyte survival, monocyte-to-macrophage conversion, and macrophage proliferation. M-CSF/CSF-1 is a secreted cytokine which influences hemopoietic stem cells to differentiate into macrophages or other related cell types. It binds to the Colony stimulating factor 1 receptor. M-CSF/CSF-1 may also be involved in development of the placenta. The active form of M-CSF/CSF-1 is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. M-CSF/CSF-1 induces cells of the monocyte/macrophage lineage. It also plays a role in immunological defenses, bone metabolism, lipoproteins clearance, fertility and pregnancy. Upregulation of M-CSF/CSF-1 in the infarcted myocardium may have an active role in healing not only through its effects on cells of monocyte/macrophage lineage, but also by regulating endothelial cell chemokine expression.

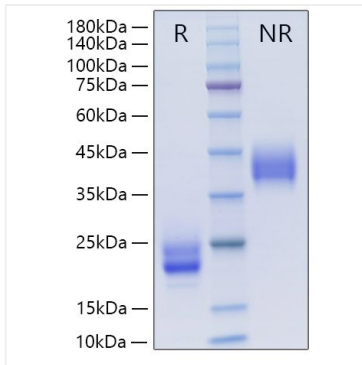
## Basic Information

**Description**  
Recombinant Mouse CSF-1/M-CSF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence [Met1-Pro187] of Mouse CSF-1/M-CSF (Accession #NP\_031804.3.) fused with No-tag.

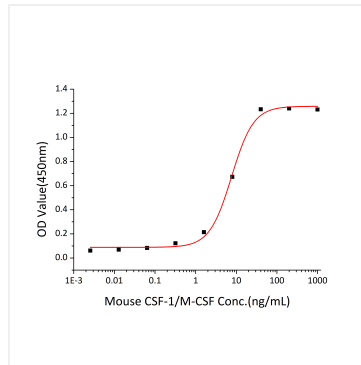
**Bio-Activity**  
Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED<sub>50</sub> for this effect is 3.76-15.16 ng/mL, corresponding to a specific activity of 6.6×10<sup>4</sup>~2.65×10<sup>5</sup> units/mg.

**Storage**  
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

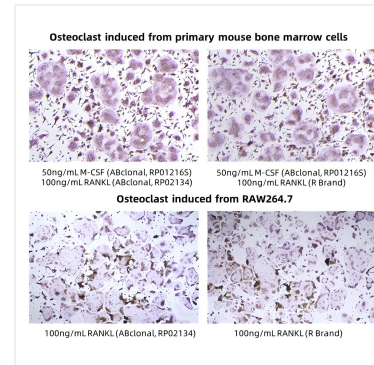
## Validation Data



Recombinant Mouse CSF-1/M-CSF Protein was resolved with SDS PAGE under reducing (R) and non-reducing (NR) conditions showing single bands at 20-25 kDa and 35-45 kDa, respectively.



Recombinant Mouse CSF-1/M-CSF stimulates cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED<sub>50</sub> for this effect is 3.76-15.16 ng/mL, corresponding to a specific activity of  $6.6 \times 10^4 \sim 2.65 \times 10^5$  units/mg.



Osteoclast induced from primary mouse bone marrow cells