

# Recombinant Pig CSF-1/M-CSF Protein

**Catalog No.: RP00670**

## Sequence Information

**Species**      **Gene ID**  
Pig(Porcine)      100513084 (For reference)

**Swiss Prot**      **Tags**  
A0A287BPE2      C-PigFc  
(For reference)

### Synonyms

Macrophage colony-stimulating factor 1, CSF-1, MCSF, CSF1, Porcine, Pig

## Product Information

**Source**      **Purification**  
HEK293 cells      ≥ 95 % as determined by SDS-PAGE.

**Calculated MW** **Observed MW**  
43.81 Da      45-60 KDa

### Endotoxin

< 0.01 EU per µg of the protein as determined by the LAL method.

### Formulation

Lyophilized from 0.22µm filtered solution in 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.

## 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 Pig CSF-1/M-CSF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser36-Arg189) of Pig CSF-1/M-CSF (Accession #NP\_001231452.1) fused with Fc tag at the C-terminus.

### 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 26.97-107.86 ng/mL, corresponding to a specific activity of 9.3 × 10<sup>3</sup>~3.71 × 10<sup>4</sup> units/mg.

### Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C

### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

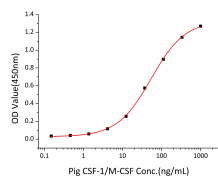
## Contact

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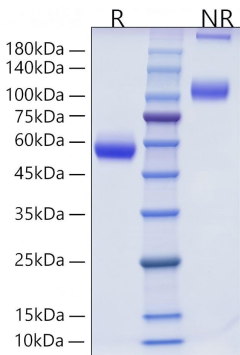
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# Validation Data



Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED<sub>50</sub> for this effect is 26.97-107.86 ng/mL, corresponding to a specific activity of  $9.3 \times 10^3 \sim 3.71 \times 10^4$  units/mg.



Recombinant Pig CSF-1/M-CSF Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.