



# Recombinant Mouse M-CSF

20210823BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>M10-078S</b>
Size:	2 µg
Lot. No.:	According to product label

## Scientific Background

<b>Gene-ID (NCBI):</b>	12977
<b>Synonyms:</b>	Csf1; op; Csfm; MCSF; C87615

M-CSF is a potent hematopoietic factor produced by a variety of cells including lymphocytes, monocytes, fibroblasts, endothelial cells, myoblasts and osteoblasts. It is a key regulator of cellular proliferation, differentiation, and survival of blood monocytes, tissue macrophages and their progenitor cells. M-CSF has been shown to play important roles in modulating dermal thickness, and male and female fertility. M-CSF is clinically used in the treatment of infection, malignancies and atherosclerosis. It facilitates hematopoietic recovery after bone marrow transplantation. The human is reactive in murine systems, but the murine molecule exhibits no activity on human cells. Recombinant murine M-CSF is a 36.4 kDa homodimeric protein containing two 156 amino acid polypeptide subunits.

### Sequence

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MKEVSEHCSH  MIGNGHLKVL  QQLIDSQMET  SCQIAFEFVD  
QEQLDDPVCY  LKKAFFLVQD  IIDETMRFKD  NTPNANATER  
LQELSNLNS   CFTKDYEEN  KACVRFPHET  PLQLLEKIKN  
FFNETKNLLE  KDWNIPTKNC  NNSFAKCSSR  DVVTKP
```

### Database References

<b>Protein RefSeq:</b>	NP_031804.3
<b>Uniprot ID:</b>	P07141
<b>mRNA RefSeq:</b>	NM_007778

## Product Specifications

<b>Expressed in</b>	E. coli
<b>Purity</b>	> 98% by SDS-PAGE & HPLC analyses
<b>Structural Information</b>	homodimer
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	Lyophilized (5mM Sodium Phosphate, pH 8.0 + 100mM NaCl)
<b>Length (aa):</b>	156
<b>MW:</b>	36.4

**Stability:** The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

**Reconstitution:** Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-0.5 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

**Biological Activity:** The ED<sub>50</sub> as determined by the dose-dependent stimulation of the proliferation of M-NFS-60 cells is < 1.0 ng/ml, corresponding to a specific activity of > 1 x 10<sup>6</sup> units/mg.