

# Macrophage Colony Stimulating Factor, mouse recombinant (rmM-CSF)

Catalog No:	87310
Lot No:	XXXXX
Source:	E. coli
Synonyms:	CSF-1, Lanimostim, MCSF, M-CSF

## Background

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 monocytesmacrophages. CSF-1 induces cells of the monocyte/macrophage lineage. It plays a role in immunological defenses, bone metabolism, lipoproteins clearance, fertility and pregnancy.

## Description

Macrophage Colony Stimulating Factor mouse recombinant produced in *E. coli* is a disulfide linked homodimer, nonglycosylated, polypeptide chain containing 2 x 156 amino acids and having a total molecular mass of 36.4 kDa. MCSF is purified by proprietary chromatographic techniques.

### **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

## Formulation

The protein was lyophilized from a sterile (0.2µm) filtered solution containing 10mM sodium phosphate, 50mM sodium chloride, pH 7.5.

### Solubility

It is recommended to reconstitute the lyophilized M-CSF in sterile 18 M $\Omega$ -cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

#### Stability

Lyophilized M-CSF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution MCSF should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

#### Purity

Greater than 95.0% as determined by SDS-PAGE.

#### Amino Acid Sequence

MKEVSEHCSH MIGNGHLKVL QQLIDSQMET SCQIAFEFVD QEQLDDPVCY LKKAFFLVQD IIDETMRFKD NTPNANATER LQELSNNLNS CFTKDYEEQN KACVRTFHET PLQLLEKIKN FFNETKNLLE KDWNIFTKNC NNSFAKCSSR DVVTKP

#### Activity

The  $ED_{50}$ , as calculated by the dose-dependant stimulation of the proliferation of murine M-NFS-60 indicator cells is 1.33ng/ml corresponding to a specific activity of  $7.5 \times 10^5$  units/mg.

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# Usage

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