

M-CSF Protein, Mouse (HEK293, C-His)

Cat. No.:	HY-P70263A
Synonyms:	rMuMacrophage colony-stimulating factor 1/M-CSF, His; Macrophage colony-stimulating factor 1; CSF-1; MCSF; Csf1; Csfm
Species:	Mouse
Source:	HEK293
Accession:	P07141 (K33-E262)
Gene ID:	12977
Molecular Weight:	Approximately 38-55 kDa in SDS-PAGE under reducing conditions due to glycosylation.

PROPERTIES

AA Sequence	<p> KEVSEHC SHM I G N G H L K V L Q Q L I D S Q M E T S C Q I A F E F V D Q E Q L D D P V C Y L K K A F F L V Q D I I D E T M R F K D N T P N A N A T E R L Q E L S N N L N S C F T K D Y E E Q N K A C V R T F H E T P L Q L L E K I K N F F N E T K N L L E K D W N I F T K N C N N S F A K C S S R D V V T K P D C N C L Y P K A T P S S D P A S A S P H Q P P A P S M A P L A G L A W D D S Q R T E G S S L L P S E L P L R I E D P G S A K Q R P P R S T C Q T L E </p>
Biological Activity	<p>1. Measured in a cell proliferation assay using THP-1 human myeloid leukemia mononuclear cells. The ED₅₀ for this effect is 1.325 ng/mL, corresponding to a specific activity is 7.547×10⁵ units/mg.</p> <p>2. Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED₅₀ for this effect is 2.258 ng/mL, corresponding to a specific activity is 4.43×10⁵ units/mg.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4 or PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	M-CSF Protein is a key orchestrator in regulating the survival, proliferation, and differentiation of hematopoietic precursor
-------------------	---

cells, particularly mononuclear phagocytes, including macrophages and monocytes. It actively promotes the release of pro-inflammatory chemokines, thereby playing a pivotal role in innate immunity and inflammatory processes. Additionally, M-CSF assumes a crucial role in the regulation of osteoclast proliferation and differentiation, influencing bone resorption, and contributing to normal bone development. Beyond its skeletal impact, M-CSF is indispensable for normal male and female fertility. The cytokine also facilitates the reorganization of the actin cytoskeleton, regulates the formation of membrane ruffles, cell adhesion, and cell migration. It further plays a role in lipoprotein clearance. M-CSF exists in multiple forms, including a homodimer with two identical 150-200 kDa proteoglycan subunits, a heterodimer with a 150-200 kDa proteoglycan subunit and a truncated 43 kDa subunit, and a homodimer with two identical 43 kDa subunits. The protein's diverse functions are mediated through its interaction with the receptor CSF1R.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA