

M-CSF Protein, Mouse (HEK293)

Cat. No.:	HY-P70553
Synonyms:	Macrophage colony-stimulating factor 1; CSF-1; MCSF; Csf1; Csfm
Species:	Mouse
Source:	HEK293
Accession:	P07141 (K33-E262)
Gene ID:	12977
Molecular Weight:	37-56 kDa

PROPERTIES

AA Sequence	<pre> K E V S E H C S H M 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 </pre>
Biological Activity	<p>1.The cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells with an ED₅₀ value of ≤15 ng/mL.</p> <p>2.Immobilized mouse CSF1 at 2 µg/mL (100 µl/well) can bind mouse CSF1R-Fch, The EC₅₀ of mouse CSF1R-Fch is 60-220 ng/mL.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, 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	Macrophage Colony Stimulating Factor (M-CSF) is a pro-inflammatory cytokine, constitutively produced by several cell
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types, such as fibroblasts, endothelial cells, stromal cells, macrophages, smooth muscle cells and osteoblasts, binds to its receptor CSF1R, and exists in several isoforms- as a secreted glycoprotein, a cell-surface protein and a proteoglycan^[1]. M-CSF is involved in the development and proliferation of cells of the monocyte/macrophage lineage and participates in the induction of osteoclasts, which are important in the destruction of bone and cartilage and in the periarticular osteoporotic changes seen in patients with rheumatoid arthritis^[2].

REFERENCES

[1]. Hamilton JA. Colony-stimulating factors in inflammation and autoimmunity. *Nat Rev Immunol*. 2008 Jul;8(7):533-44.

[2]. Rioja I, et al. Potential novel biomarkers of disease activity in rheumatoid arthritis patients: CXCL13, CCL23, transforming growth factor alpha, tumor necrosis factor receptor superfamily member 9, and macrophage colony-stimulating factor. *Arthritis Rheum*. 2008 Aug;58(8):2257-67.

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

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