M-CSF Protein, Human (CHO,Tag Free)

Cat. No.:	HY-P701101
Synonyms:	rHuM-CSF; CSF-1; MGI-IM
Species:	Human
Source:	CHO
Accession:	P09603-1 (E33-N190)
Gene ID:	1435
Molecular Weight:	Approximately 20-32 kDa due to the glycosylation.

PROPERTIES

AA Sequence	E E V S E Y C S H M I G S G H L Q S L Q R L I D S Q M E T S C Q I T F E F V D Q E Q L K D P V C Y L K K A F L L V Q D I M E D T M R F R D N T P N A I A I V Q L Q E L S L R L K S C F T K D Y E E H D K A C V R T F Y E T P L Q L L E K V K N V F N E T K N L L D K D W N I F S K N C N N S F A E C S S Q D V V T K P D C N
Biological Activity	Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED_{50} for this effect is ≤3 ng/mL, corresponding to a specific activity is 3.33×10^5 units/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<0.2 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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	Recombinant Human Macrophage Colony-stimulating Factor (CHO-expressed) is a hematopoietic growth factor with various glycosylation sites, affects survival and function of the tissue macrophages, and possesses antitumor activity[1]. Macrophage Colony Stimulating Factor (M-CSF) is a pro-inflammatory cytokine, constitutively produced by several cell 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[2]. 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[3].

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