Overview

Synonyms	Macrophage Colony Stimulating Factor, CSF-1, MGI-IM, M-CSF
Description	**Macrophage Colony Stimulating Factor (M-CSF)** ,also known as CSF1,is a potent hematopoietic factor produced by a variety of cells including lymphocytes, monocytes, fibroblasts, endothelial cells, myoblasts and osteoblasts. The active form of the protein is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. It is a key regulator of cellular proliferation, differentiation, and survival of blood monocytes, tissue macrophages and their progenitor cells.M-CSF affects macrophages and monocytes in several ways, including stimulating increased phagocytic and chemotactic activity, and increased tumour cell cytotoxicity.M-CSF is clinically used in the treatment of infection, malignancies and atherosclerosis. It facilitates hematopoietic recovery after bone marrow transplantation. Recombinant **mouse Macrophage Colony Stimulating Factor (M-CSF)** produced in *E. coli* is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 156 amino acids each. A fully biologically active molecule, rmM-CSF has a molecular mass of 30 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Accession No	P07141
Species	Mouse
Source	*E. coli*
Biological Activity	ED_{50}< 3 ng/ml, measured in a cell proliferation assay using Murine M-NFS-60 cells, corresponding to a specific activity of > 3.3×10^5 units/mg.
Sequence	MKEVSEHCSH MIGNGHLKVL QQLIDSQMET SCQIAFEFVD QEQLDDPVCY LKKAFFLVQD IIDETMRFKD NTPNANATER LQELSNNLNS CFTKDYEEQN KACVRTFHET PLQLLEKIKN FFNETKNLLE KDWNIFTKNC NNSFAKCSSR DVVTKP

Properties

Measured Molecular Weight	30 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE.
Formulation	Lyophilized after extensive dialysis against 50mMTris,150mMNaCl, pH 8.0.
Reconstitution	Reconstituted in ddH_2O at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant **Mouse Macrophage Colony Stimulating Factor(M-CSF)** remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, **Mouse M-CSF** should be stable up to 1 week at 4°C or up to 2 months at -20°C.
Note	For research use only

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