

DATASHEET
Version 20181206**M-CSF, Mouse****Cat. No.:** Z03275-10**Size:** 10.0 ug**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 at GenScript.

Amino Acid Sequence:

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00001 MKEVSEHCSH MIGNHGLKVL QQLIDSMQMET SCQIAFEFVD
00041 QEQLDDPVCY LKKAFFLVQD IIDETMRFKD NTPNANATER
00081 LQELSNLNS CFTKDYEEN KACVRTFHET PLQLLEIKN
00121 FFNETKNLLE KDWNIPTKNC NNSFAKCSSR DVVTKP
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Source: *E. coli***Species:** Mouse**Biological Activity:** ED₅₀ < 3 ng/ml, measured in a cell proliferation assay using Murine M-NFS-60 cells, corresponding to a specific activity of > 3.3×10⁵ units/mg.**Molecular Weight:** 30 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against 50mM Tris, 150mM NaCl, pH 8.0.**Reconstitution:** Reconstituted in ddH₂O at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**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.