

BACKGROUND:

Macrophage colony stimulating factor (M-CSF) is hematopoietic growth factor produced by a wide variety of cells. M-CSF is known to stimulate differentiation of hematopoietic stem cells to monocyte-macrophage cell populations in culture. M-CSF acts through the CSF receptor 1. Although human M-CSF shows activity on mouse cells, mouse CSF shows no activity on human cells.

Recombinant human M-CSF is a disulfide linked homodimer, containing two 159 amino acids and having a total molecular mass of 36.8 kDa.

Cat. No.:
RP1003AF

Alternate Names:
MGI-IM, CSF-1

AA Sequence:

MEEVSEYCSH	MIGSGHLQSL	QRLIDSQMET
SCQITFEFVD	QEQLKDPVCY	LKKAFLLVQD
IMEDTMRFRD	NTPNAIAIVQ	LQELSLRLKS
CFTKDYEEDH	KACVRTFYET	PLQLLEKVKV
VFNETKNLLD	KDWNIFSKNC	NNSFAECSSQ
GHERQSEGS		

TECHNICAL INFO

Source:
E. Coli

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
10 mM sodium phosphate, 50 mM sodium chloride, pH 8.0

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is measured by dose-dependent T11 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 200 ng/mL.

Animal Component-Free
This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

