



Macrophage Colony-Stimulating Factor 1 (M-CSF) Human, E. coli Recombinant Protein

Product Data Sheet

Cat. No.:	A3308002	A3308010	A33081MG
Size:	2 µg	10 µg	1 mg

Description:

Macrophage Colony-Stimulating Factor 1 (M-CSF) Human, E. coli Recombinant Protein is a disulfide linked homodimer, non-glycosylated, polypeptide chain containing 2 x 159 amino acids and has a total molecular mass of 37.1 kDa. Human M-CSF is purified by proprietary chromatographic techniques.

Summary:

Macrophage colony-stimulating factor (M-CSF) is a cytokine that plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. Promotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and in inflammatory processes. Plays an important role in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone development. Required for normal male and female fertility. Promotes reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration. Plays a role in lipoprotein clearance. [Reference: [UniProtKB - A0A024R0A1 \(CSF1_HUMAN\)](#)].

Amino Acid Sequence:

MEEVSEYCSH MIGSGHLQSL QRLIDSQMET SCQITFEFVD QEQLKDPVCY LKKAFLLVQD IMEDTMRFRD
NTPNAIAIVQ LQELSLRLKS CFTKDYEEDH KACVRTFYET PLQLLEKVKN VFNETKNLLD KDOWNIFSKNC
NNSFAECSSQ GHERQSEGS.

Other Names:

Bioactive Human M-CSF, CSF-1, CSF1 gene product, MCSF

Source:

E. coli

update.: 06.2023

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**Purity:**

Greater than 95.0% as determined by SDS-PAGE.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation:

The protein was lyophilized with 10mM sodium Phosphate, pH-8.0 and 50mM NaCl.

Reconstitution:

It is recommended to reconstitute the lyophilized M-CSF in sterile 18M-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Biological Activity:

The ED₅₀, calculated by the dose-dependent stimulation of the proliferation of murine M-NFS-60 indicator cells, was found to be 1.15 ng/ml corresponding to a specific activity of 8.7x10⁵ Units/mg.

Shipping:

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Stability:

Lyophilized M-CSF, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution, M-CSF should be stored at 4° C between 2-7 days and for future use below -18° C. **Please prevent freeze-thaw cycles.**

Usage:

This product is intended for **Laboratory Research Use Only**. Not for use in diagnostic or therapeutic procedures. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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