



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

### Product Data Sheet

Cat. No.:	A3856002	A3856010	A38561MG
Size:	2 µg	10 µg	1 mg

#### Description:

Macrophage Colony-Stimulating Factor 1 (M-CSF) Rat, E. coli Recombinant Protein is a non-glycosylated homodimer, containing 2 x 155 amino acids and has a total molecular mass of 36.2 kDa. 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 - Q8JZQ0 \(CSF1\\_RAT\)](#)].

#### Amino Acid Sequence:

MEVSEHCSHM IGNGHLQILQ QLIDSQMETA CLIEYKFVDQ EQLDDPVCYL KKAFVLVQVI IEETMRFKDN  
TPNANATERL QELSMKLNLC FIKDYKEQNE ACVQTYKESP LRLLEKIKNF FNETKNFLEK DWNIFSKNCN  
DSLAKCSSRD VVTKP.

#### Other Names:

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

#### Source:

E. coli

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**Purity:**

Greater than 95.0% as determined by SDS-PAGE.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:**

Lyophilized from a sterile filtered aqueous solution containing 10mM Na<sub>3</sub>PO<sub>4</sub>, pH 7.5.

**Reconstitution:**

It is recommended to reconstitute the lyophilized M-CSF in sterile 18M-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Biological Activity:**

The activity as determined by dose-dependent induction of M-NFS-60 cell proliferation is 1.65 ng/ml. This corresponds to an expected specific activity of 6.1x10<sup>5</sup> 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. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage:**

Ilex Life Sciences products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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