

Human M-CSF

Human Macrophage-Colony Stimulating Factor, recombinant

Synonyms: CSF-1, MGI-IM

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date*
2 µg	W 1675950002	3501078500	September 2013

Description

Recombinant human Macrophage-Colony Stimulating Factor (hM-CSF) is a 36.8 kDa homodimeric protein containing two 159 amino acid polypeptide subunits. It is a potent hematopoietic factor produced by a variety of cells including lymphocytes, monocytes, fibroblasts, endothelial cells, myoblasts and osteoblasts. It is a key regulator of cellular proliferation, differentiation, and survival of blood monocytes, tissue macrophages and their progenitor cells. M-CSF has been shown to play important roles in modulating dermal thickness, and male and female fertility. M-CSF is clinically used in the treatment of infection, malignancies and atherosclerosis. It facilitates hematopoietic recovery after bone marrow transplantation. The human is reactive in murine systems, but the murine molecule exhibits no activity on human cells.

- **Biological activity** $\geq 1.0 \times 10^6$ units/mg
- **Source** *E. coli*
- **Purity** ≥ 98 % (SDS-PAGE;HPLC)
- **Endotoxin level** ≤ 0.1 ng per µg (≤ 1 EU/µg)
- **Stabilizer** None
- **Buffer** Sodium Phosphate (pH 8.0) + NaCl (75mM)
- **Physical state** Sterile filtered, lyophilized

Biological activity

The ED₅₀ of ≤ 1.0 ng/ml was determined by its ability to stimulate the proliferation of murine M-NFS-60 cells. It corresponds to a specific activity of $\geq 1.0 \times 10^6$ units/mg.

Reconstitution

We recommend a quick spin followed by reconstitution in water to a concentration of 0.1-0.5 mg/ml. *Do not vortex*. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Stability

The lyophilized protein is stable at room temperature for up 1 month. Reconstituted human M-CSF should be stored in working aliquots with a carrier protein for at least 12 months at -20°C to -80°C. **Please avoid repeated freeze thaw cycles.**

Usage

FOR RESEARCH USE ONLY

NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

*For lyophilized product if stored as indicated. Please contact our technical support if the product has expired.

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