

## CSF1

### Recombinant Human Macrophage Colony Stimulating Factor

Catalog No.	CRM151B	Quantity:	10 µg
	CRM151C		1.0 mg
	CRM151D		100 µg

**Alternate Names:** M-CSF, CSF-1, MCSF

**Description:** Macrophage Colony Stimulating Factor (M-CSF), also called CSF-1, is a hematopoietic growth factor that is involved in the proliferation, differentiation, and survival of monocytes, macrophages, and bone marrow progenitor cells. It is produced by osteoblasts (as a result of endocrine stimulation by parathyroid hormone), exerts paracrine effects on osteoclasts, and can interact with CSF1R. M-CSF is a four  $\alpha$ -helical bundle cytokine and its active form is found extracellularly as a disulfide-linked homodimer thought to be produced by proteolytic cleavage of membrane-bound precursors.

**UniProt ID:** P09603

**Source:** *E. coli*

**Molecular Weight:** 18.5/37.1 kDa (159/318 aa) dimer

**Formulation:** Lyophilized from a sterile filtered solution in 10 mM sodium phosphate, 100 mM sodium chloride, pH 8.0.

**Purity:** >95% by reducing and non-reducing SDS-PAGE

**Endotoxin Level:**  $\leq 0.1$  EU/µg by kinetic LAL analysis

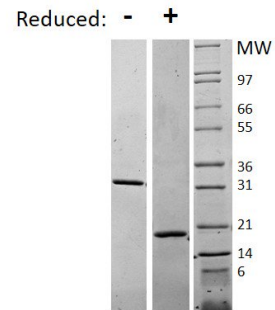
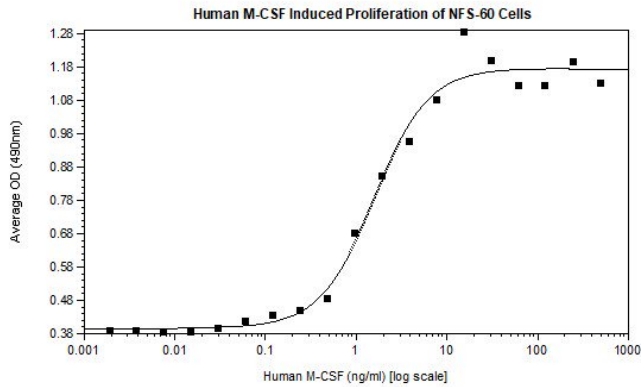
**Biological Activity:**  $ED_{50} \leq 10$  ng/ml, determined by a cell proliferation assay using mouse NFS-60 cells.

**Specific Activity:**  $\geq 1 \times 10^5$  units/mg  
The WHO International Standard (NIBSC code: 89/512) for rhM-CSF was tested in the in-house assay. To convert the in-house specific activity value to specific activity in International units (IU), multiply by 0.60

**Amino Acid Sequence:** MEEVSEYCSH MIGSGHLQSL QRLIDSQMET SCQITFEFVD QEQLKDPVCY  
LKKAFLLVQD IMEDTMRFRD NTPNAIAIVQ LQELSLRLKS CFTKDYEEHD  
KACVRTFYET PLQLLEKVKN VFNETKNLLD KDOWNIFSKNC NNSFAECSSQ  
GHERQSEGS

**Reconstitution:** **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL. **DO NOT VORTEX.** Allow several minutes for complete reconstitution. Further dilutions should be made in appropriate buffered solutions.

**Storage & Stability:** Store as supplied at -20 °C to -80 °C for up to one year. Upon reconstitution, preparation is stable for one month at 2-8 °C. For longer term, prepare working aliquots containing 0.1% BSA and store at -20 °C to -80 °C. **Avoid repeated freeze-thaw cycles.**



## Human M-CSF

Figure: 1 ug run under (+) reducing conditions and (-) non-reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human M-CSF is a homodimer with a total predicted MW of 37.1 kDa.

**NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**



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