

## M CSF Human

**Description:** Macrophage Colony Stimulating Factor Human Recombinant produced in E.coli is a disulfide linked homodimer, non-glycosylated, polypeptide chain containing 2 x 159 amino acids and having a total molecular mass of 36.8 KD. MCSF is purified by proprietary chromatographic techniques.

**Synonyms:** Macrophage Colony Stimulating Factor, CSF-1, Lanimostim, MCSF, MGC31930, M-CSF.

**Source:** Escherichia Coli.

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

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids of MCSF was determined and found to be Met-Glu-Glu-Val-Ser.

**Purity:** Greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Formulation:**

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

**Stability:**

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

**Usage:**

NeoBiolab's 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.

**Solubility:**

It is recommended to reconstitute the lyophilized MCSF in sterile 18M-cm H<sub>2</sub>O not less than 100

**Introduction:**

Granulocyte/Macrophage Colony-Stimulating Factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. MCSF induces cells of the monocyte/macrophage lineage. MCSF plays a role in immunological defenses, bone metabolism, lipoproteins clearance, fertility and pregnancy.

**Biological Activity:**

The ED<sub>50</sub>, calculated by the dose-dependent stimulation of the proliferation of murine M-NFS-60 indicator cells was found to be < 2.0ng/ml, corresponding to a specific activity of 500,00Units/mg.

**References:**

1. Title: Osteoclasts Control Osteoblast Chemotaxis via PDGF-BB/PDGF Receptor Beta Signaling. Publication: Sanchez-Fernandez MA, Gallois A, Riedl T, Jurdic P, Hoflack B (2008)

doi:10.1371/journal.pone.0003537.Link:<http://www.plosone.org/article/info:doi%2F10.1371%2Fjournal.pone.0003537#references2>.Title:Suppressor of cytokine signalling-3 at pathological levels does not regulate lipopolysaccharide or interleukin-10 control of tumour necrosis factor- production by human monocytes.Publication:Article first published online: 11 MAY 2006 DOI: 10.1111/j.1365-2567.2006.02383.xLink:<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2567.2006.02383.x/full>

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