

Macrophage Colony Stimulating Factor, human recombinant (rHuM-CSF)

Catalog No: 60530 Lot No: XXXXX Source: *E. coli*

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

Background

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.

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 37.1 kDa. MCSF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

MCSF (1 mg/ml) was lyophilized with 10 mM NaP, pH 8.0 and 50 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized M-CSF in sterile 18 M Ω -cm H $_2$ O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

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.

Purity

Greater than 95% as determined by SDS-PAGE.

Amino Acid Sequence

MEEVSEYCSH MIGSGHLQSL QRLIDSQMET SCQITFEFVD QEQLKDPVCY LKKAFLLVQD IMEDTMRFRD NTPNAIAIVQ LQELSLRLKS CFTKDYEEHD KACVRTFYET PLQLLEKVKN VFNETKNLLD KDWNIFSKNC NNSFAECSSQ GHERQSEGS

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 $8.7 \times 10^5 \text{ units/mg}$.





Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.