

Recombinant Human Macrophage Colony Stimulating Factor (rh M-CSF)

Synonyms: CSF-1, Lanimostim

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. M-CSF induces cells of the monocyte/ macrophage lineage. It plays a role in immunological defenses, bone metabolism, lipoproteins clearance, fertility and pregnancy.

Description: Recombinant human M-CSF 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 kDa. rh M-CSF is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: lyophilized from a 0.22 filtered carrier free solution in 50 mM Tris and 250 mM NaCl, pH 10.0. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery.

Solubility: It is recommended to reconstitute the lyophilized rh M-CSF in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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

Purity: 95.0% as determined by SDS-PAGE / silver stain.

Endotoxicity: The endotoxin level is less than 1 EU/µg determined by LAL method

Amino Acid Sequence: MEEVSEYCSH MIGSGHLQSL QRLIDSQMET SCQITFEFVD QEQLKDPVCY LKKAFLLVQD IMEDTMRFRD NTPNAIAIVQ LQELSLRLKS CFTKDYEEHD KACVRTFYET LQLEKVKVNFNETKNLLD KDOWNIFSKNC NNSFAECSSQ GHERQSEGS.

Biological Activity: The ED₅₀ tested by receptor driven reporter gene expression in Ba/F3 c-fms transfectants was found to be 5 x 10⁵ IU/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11343112
<i>medium</i>	10 µg	Cat.N°	11343113
<i>large</i>	50 µg	Cat.N°	11343115
<i>x-large</i>	250 µg	Cat.N°	11343117

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