CSF1
Recombinant Human M-CSF / CSF-1, Endotoxin Free

Catalog No.	CRM146A	**Quantity:**	10 µg
	CRM146B		50 µg
	CRM146C		1 mg
	CRM146D		100 µg

Alternate Names: Macrophage colony-stimulating factor 1, CSF-1, M-CSF, Lanimostim

Description: Macrophage colony-stimulating factor 1 is a hematopoietic growth factor produced by monocytes, granulocytes, endothelial cells, fibroblasts and activated B-cells and T-cells. M-CSF stimulates macrophage colony formation and regulates proliferation and differentiation of hematopoeitic stem cells into macrophages and regulates survival and differentiation of monocytes. It enhances antibody-dependent cell-mediated cytotoxity, enhances marophage killing of tumor cells and microorganisms, regulates the release of cytokines and inhibits bone resorption by osteoclasts. Human M-CSF shows biological activity on mouse and rat cells and although mouse M-CSF is active in rat cells it is inactive in human cells

UniProt ID: P09603

Gene ID: 1435

Source: Recombinant Human M-CSF produced in the endosperm tissue of barley grain (*Hordeum vulgare*) exhibits up to 50 times less protease activity than *E.coli* or mammalian cells. Barley seed is void of any human or animal viral contaminants that could jeopardize stem cell culture.

Molecular Weight: Recombinant human M-CSF contains 159 aa with a 16 aa His tag for a total length of 175 aa, a predicted molecular mass of 20.7 kDa, and an apparent molecular mass of 24 -26 kDa by SDS-PAGE.

Formulation: Lyophilized from PBS, pH 7.2, sterile filtered through a 0.2 µm filter.

Purity: > 95% by SDS-PAGE gel analysis.

Endotoxin Level: Endotoxin level is less than 0.005 ng per µg (0.05 EU/µg) as measured by turbidimetric kinetic assay.

Biological Activity: ED_{50} <2 ng/ml. Bioactivity is assayed by measuring the dose-dependent effect of human M-CSF on proliferation of M-NFS-60 cells.

Specific Activity: > 5 x 10^5 U/mg

Reconstitution: **Centrifuge vial prior to opening**. Reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. The solution can be further diluted into aliquots in aqueous buffers. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please note that the addition of any carrier protein into this product may introduce endotoxin. Depending upon the particular application employed, this may be undesirable.**

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Storage & Stability: The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles.**

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

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