

## Recombinant Mouse M-CSF, Tag Free

### Information

Gene ID	Mm.795.
Accession #	Q3U4F9
Alternate Names	CSF-1; MGI-IM
Source	Escherichia coli.
Protein sequence	KEVSEHCSHM IGNGHLKVLQ QLIDSQMETS CQIAFEFVDQ EQLDDPVCYL KKAFFLVQDI IDETMRFKDN TPNANATERL QELSNNLNSC FTKDYEEQNK ACVRTFHETP LQLEKIKNF FNETKNLLEK DWNIFTKNCN NSFAKCSSRD VVTKPDCNCL YPKATPSSDP ASASPHQPPA PSMAPLAGLA WDDSQRTEGS SLLPSELPLR IEDPGSAKQR PPRSTCQTLE
Tag	C-His
M.Wt	The protein has a calculated MW of 25.9 KDa.
Appearance	Solution protein.
Stability & Storage	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. -2 years from date of receipt, -20 to -70 °C as supplied.
Concentration	1 mg/mL
Formulation	Supplied as a 0.2 µm filtered solution in PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	Fully biologically active as determined by a cell proliferation assay using M--NFS--60 mouse myelogenous leukemia lymphoblast cells. The EC50 for this effect is 1.9 ng/mL.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

### Quality Control

Purity	> 95 % by SDS-PAGE.
Endotoxin	Less than 1.0 EU/µg as determined by LAL method.

### Description

Macrophage colony-stimulating factor 1, also known as CSF-1, M-CSF, Lanimostim, and CSF1, is a single-pass membrane protein linked by disulfide bonds in the form of homodimers or heterodimers. Granulocyte/macrophage colony-stimulating factor is a cytokine that plays a role in hematopoiesis by controlling the production, differentiation, and function of 2 related leukocyte populations (granulocytes and monocytes-macrophages) in the blood. M-CSF/CSF-1 is known to contribute to monocyte survival, monocyte-to-macrophage transformation, and macrophage proliferation. M-CSF/CSF-1 is a secreted cytokine that influences the differentiation of hematopoietic stem cells into macrophages or other related cell types. It binds to the colony-stimulating factor 1 receptor. M-CSF/CSF-1 may also be involved in the development of the placenta. The active form of M-CSF/CSF-1 is found extracellularly as a disulfide-linked homodimer and is thought to be produced by proteolytic cleavage of membrane-bound precursors. M-CSF/CSF-1 induces cells of the monocyte/macrophage

lineage. It also plays a role in immune defense, bone metabolism, lipoprotein clearance, fertility, and pregnancy. Upregulation of M-CSF/CSF-1 in infarcted myocardium may play a positive role in healing not only through its effect on monocyte/macrophage lineage cells, but also by regulating the expression of endothelial cell chemokines.





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