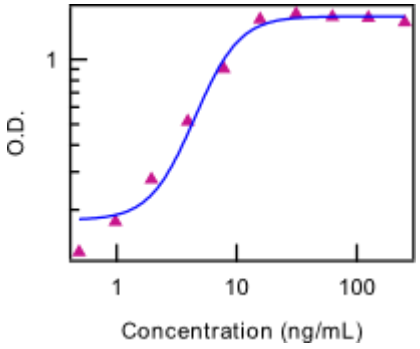
Mouse M-CSF Recombinant Protein

Catalog Number: 14-8983
Also known as: Macrophage colony stimulating factor, monocyte colony stimulating factor
RUO: For Research Use Only. Not for use in diagnostic procedures.



Proliferation of M-NFS-60 cells in response to Mouse M-CSF Recombinant Protein.

Product Information

Contents: Mouse M-CSF Recombinant Protein
REF **Catalog Number:** 14-8983
Concentration: 0.1 mg/mL
Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment
Source: Insect expressed Lys33-Pro187, accession number NM_001113530
Molecular Mass: 44.5 kDa
Purity: > 98%, as determined by SDS-PAGE.
Endotoxin: Less than 0.01 ng/ug cytokine as determined by the LAL assay.
Bioactivity: The ED50 of this protein, as determined by M-NFS-60 proliferation, is less than or equal to 10 ng/mL. This corresponds to a specific activity of greater than or equal to 1 x 10e5 Units/mg.

Formulation: Sterile liquid; phosphate buffered saline with 1% BSA, pH 7.2 0.22 um filtered.
Temperature Limitation: Store at less than or equal to -70°C.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

Description

Macrophage colony-stimulating factor (M-CSF or CSF-1) is a survival factor essential for the proliferation and development of monocytes, macrophages, and osteoclast progenitor cells. M-CSF also induces VEGF (vascular endothelial growth factor) secretion by macrophages, thereby mediating mobilization of endothelial progenitor cells and neovascularization.

M-CSF is present as several bioactive isoforms that differ in potency and stability. The full-length protein is synthesized as a membrane-spanning protein that can be expressed on the cell surface or further cleaved and modified in the secretory vesicle. The secreted protein is a disulfide-bonded homodimer which is processed into one of two isoforms, a glycoprotein or a proteoglycan that has been modified by the addition of chondroitin sulfate to each subunit. Binding of M-CSF to its receptor, c-Fms (CSF-1R or CD115) induces dimerization of the receptor followed by internalization and degradation of the complex.

Applications Reported

Recombinant mouse M-CSF is biologically active.

Applications Tested

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References

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Minamino K, Adachi Y, Okigaki M, Ito H, Togawa Y, Fujita K, Tomita M, Suzuki Y, Zhang Y, Iwasaki M, Nakano K, Koike Y, Matsubara H, Iwasaka T, Matsumura M, Ikehara S. Macrophage colony-stimulating factor (M-CSF), as well as granulocyte colony-stimulating factor (G-CSF), accelerates neovascularization. Stem Cells. 2005 Mar; 23 (3): 347-54.

Related Products

12-1152 Anti-Mouse CD115 (c-fms) PE (AFS98)
13-1152 Anti-Mouse CD115 (c-fms) Biotin (AFS98)
14-1152 Anti-Mouse CD115 (c-fms) Purified (AFS98)
14-8331 Mouse GM-CSF Recombinant Protein
14-8789 Human M-CSF Recombinant Protein
14-8971 Mouse G-CSF Recombinant Protein
16-1152 Anti-Mouse CD115 (c-fms) Functional Grade Purified (AFS98)
17-1152 Anti-Mouse CD115 (c-fms) APC (AFS98)
53-1152 Anti-Mouse CD115 (c-fms) Alexa Fluor® 488 (AFS98)

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