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Datasheet for 009-001-V78-0002

rHuman M-CSF Protein

Overview

Description:	Human Macrophage Colony Stimulating Factor Recombinant Protein - 009-001-V78-0002
Item No.:	009-001-V78-0002
Size:	2 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Macrophage Colony Stimulating Factor (M-CSF) is a hematopoietic growth factor produced by a wide variety of cells. M-CSF is known to stimulate differentiation of hematopoietic stem cells to monocyte-macrophage cell populations in culture. M-CSF acts through the CSF receptor 1. Although human M-CSF shows activity on mouse cells, mouse CSF shows no activity on human cells. Recombinant human M-CSF is a disulfide linked homodimer, containing two 159 amino acid chains, with a total molecular weight of 36.8 kDa.
Synonyms:	MGI-IM, Lanimostim
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	CSF1
Purity/Specificity:	Macrophage Colony Stimulating Factor purity was determined to be greater than 97% as determined by HpLC, analysis by UV-Spectroscopy at 280nm, and by reducing and non-reducing SDS-pAGE.
Relevant Links:	• UniProtKB - P09603

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Macrophage Colony Stimulating Factor Recombinant Protein has been tested by SDS-PAGE and biological activity and s suitable as a control for polyclonal or monoclonal anti-Macrophage Colony Stimulating Factor in immunological assays. Lyophilized in 10 mM sodium phosphate, 100 mM sodium chloride, pH 8.0.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/µg protein. Biologic Activity: The activity is determined by the dose-dependent proliferation of mouse NFS-60 cells and is typically 10.0 ng/mL.

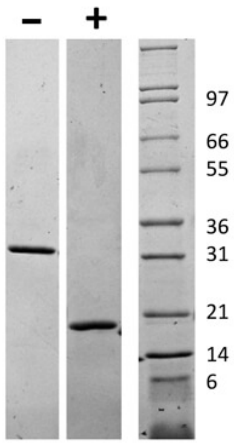
Formulation

Physical State:	Lyophilized
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	2µl (2-20µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

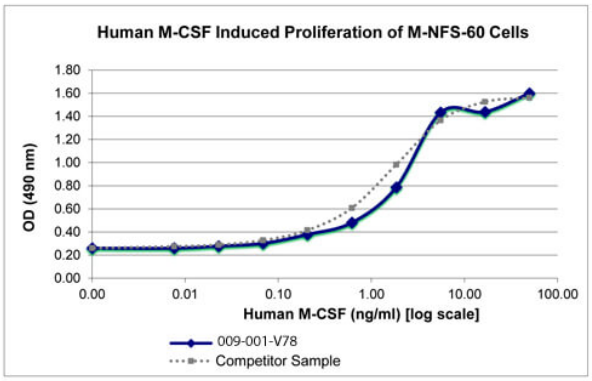
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

SDS-PAGE of Human Macrophage Colony Stimulating Factor Recombinant Protein. Lane 1: 1 µg Human M-CSF in non-reducing conditions (-). Lane 2: 1 µg Human M-CSF in reducing conditions (+). Lane 3: Molecular weight marker. Human M-CSF is a homodimer with a total predicted MW of 36.8 kDa.



SDS-PAGE

Bioactivity of Human Macrophage Colony Stimulating Factor Recombinant Protein. Serial dilutions of Human M-CSF, starting at 50 ng/mL, were added to NSF-60 cells. Cell proliferation was measured after 68 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 of Human M-CSF is 1.4-2.1 ng/mL. This value is comparable with the typical expected range of less than 2 ng/mL.

Disclaimer

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