



Synonym

M-CSF,CSF-1,Lanimostim

Source

Human M-CSF Protein, premium grade(MCF-H5218) is expressed from human 293 cells (HEK293). It contains AA Glu 33 - Arg 255 (Accession # [P09603-1](#)). Predicted N-terminus: Glu 33

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization

**M-CSF(Glu 33 - Arg 255)
P09603-1**

This protein carries no "tag".

The protein has a calculated MW of 25.1 kDa. The protein migrates as 39 kDa±3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per µg by the LAL method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

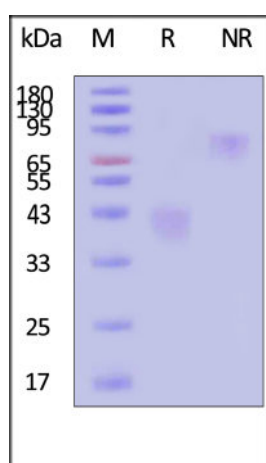
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

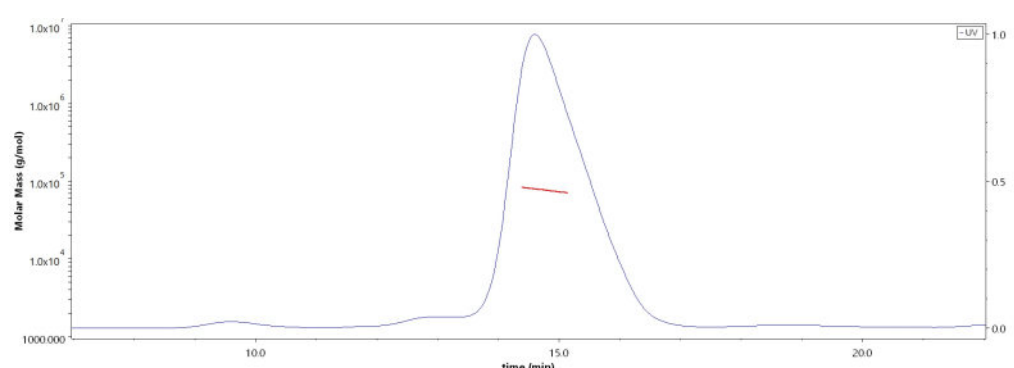
This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



SEC-MALS



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and more!



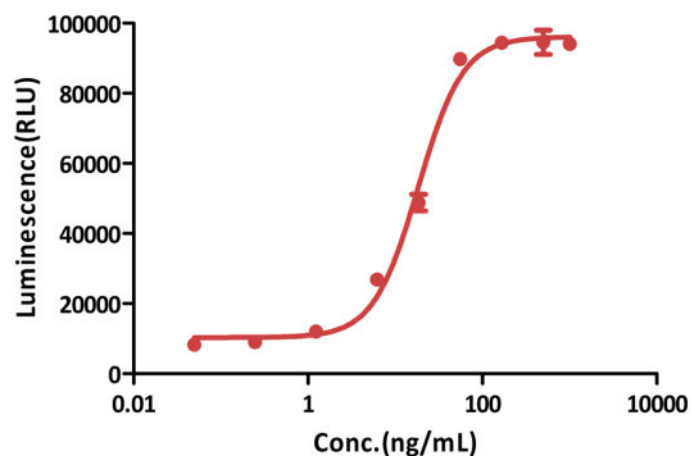


Human M-CSF Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

The purity of Human M-CSF Protein, premium grade (Cat. No. MCF-H5218) is more than 90% and the molecular weight of this protein is around 65-80 kDa verified by SEC-MALS. [Report](#)

Bioactivity-Bioactivity CELL BASE

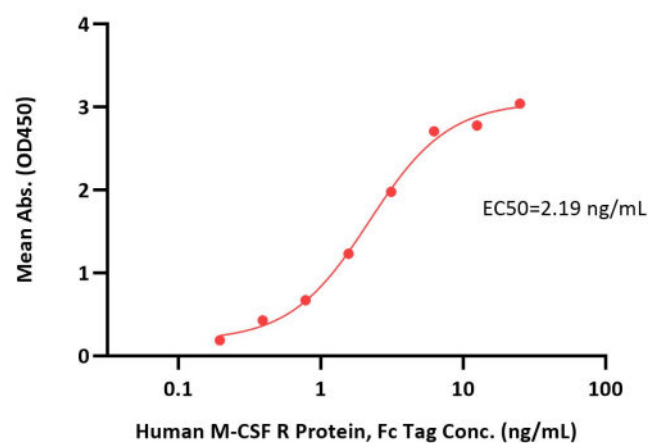
Human M-CSF Protein, premium grade stimulates proliferation of M-NFS-60 cells



Human M-CSF Protein, premium grade (Cat. No. MCF-H5218) stimulates proliferation of M-NFS-60 cells. The specific activity of Human M-CSF Protein, premium grade is $>6.00 \times 10^7$ IU/mg, which is calibrated against WHO International Standard (NIBSC code: 89/512) (QC tested).

Bioactivity-ELISA

Human M-CSF Protein, premium grade ELISA
0.5 µg of Human M-CSF Protein, premium grade per well



Immobilized Human M-CSF Protein, premium grade (Cat. No. MCF-H5218) at 5 µg/mL (100 µL/well) can bind Human M-CSF R Protein, Fc Tag (Cat. No. CSR-H5258) with a linear range of 0.2-3.1 ng/mL (QC tested).

Background

The colony stimulating factor 1 (CSF1), also known as macrophage colony-stimulating factor (M-CSF), is a secreted cytokine which influences hematopoietic stem cells to differentiate into macrophages or other related cell types. Eukaryotic cells also produce M-CSF in order to combat intercellular viral infection. It is one of the three experimentally described colony-stimulating factors. M-CSF binds to the colony stimulating factor 1 receptor. Macrophage colony-stimulating factor has been shown to interact with PIK3R2. M-CSF (or CSF-1) is a hematopoietic growth factor that is involved in the proliferation, differentiation, and survival of monocytes, macrophages, and bone marrow progenitor cells. Locally produced M-CSF in the vessel wall contributes to the development and progression of atherosclerosis.

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Clinical and Translational Updates

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