

Human M-CSF/CSF-1 Protein

Cat. No. CSF-HM401

Description

Source	Recombinant Human M-CSF/CSF-1 Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Glu33-Asn190.
Accession	P09603-1
Molecular Weight	The protein has a predicted MW of 21.3 kDa. Due to glycosylation, the protein migrates to 28-34 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

Formulation and Storage

Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

CSF-1, also known as M-CSF, is a four alpha-helical-bundle cytokine that is the primary regulator of macrophage survival, proliferation and differentiation. CSF-1 is also essential for the survival and proliferation of osteoclast progenitors. CSF-1 is a cytokine that plays an essential role in the regulation of survival, proliferation and differentiation of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes.

Assay Data

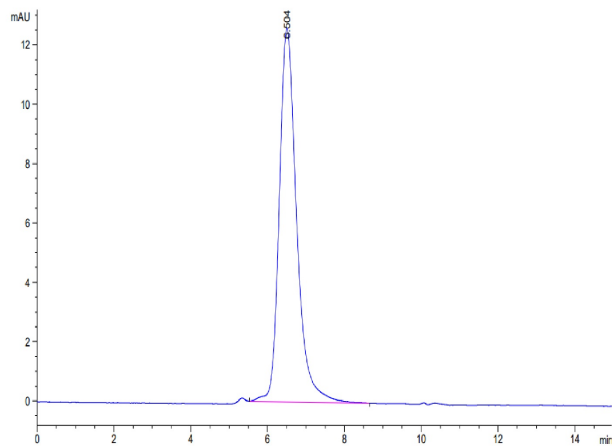
Tris-Bis PAGE



Human M-CSF on Tris-Bis PAGE under reduced conditions. The purity is greater than 95%.

SEC-HPLC

Assay Data



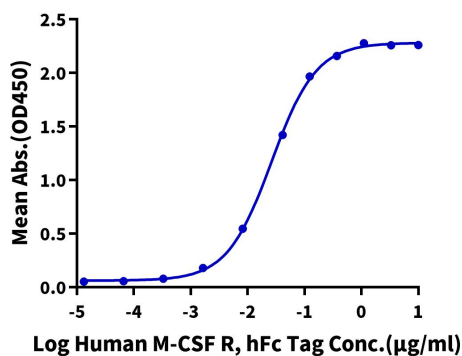
The purity of Human M-CSF is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

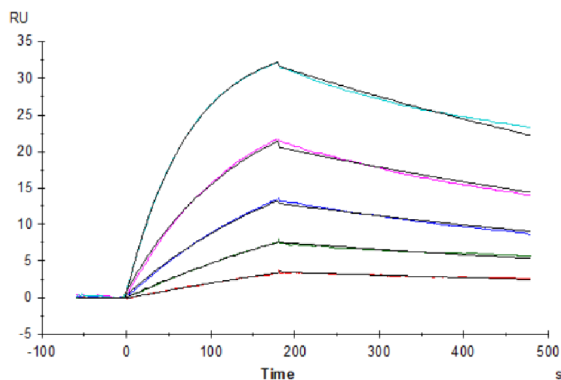
Human M-CSF, His Tag ELISA

0.05µg Human M-CSF, His Tag Per Well



Immobilized Human M-CSF, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Human M-CSF R, hFc Tag with the EC50 of 26.3ng/ml determined by ELISA (QC Test).

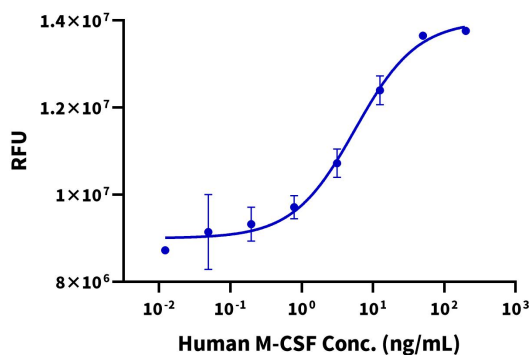
SPR Data



Human M-CSF, His Tag captured on CM5 Chip via Anti-his Antibody can bind Human M-CSF R, hFc Tag with an affinity constant of 0.24 nM as determined in SPR assay (Biacore T200).

Cell Based Assay

Recombinant Human M-CSF Bioactivity



Measured in a cell proliferation assay using RAW264.7 cells. The ED50 for this effect is 2.5 - 7.0 ng/mL.