# Human M-CSF/CSF-1 Protein

Cat. No. CSF-HM001



Description	
Source	Recombinant Human M-CSF/CSF-1 Protein is expressed from HEK293 without tag.
	It contains Glu33-Asn190.
Accession	P09603-1
Molecular Weight	The protein has a predicted MW of 18.40 kDa. Due to glycosylation, the protein migrates to 23-28 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.05 EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

#### Formulation and Storage

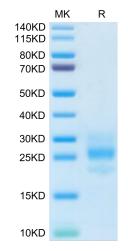
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Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt80°C for 3 months 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 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. Promotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and in inflammatory processes. This mutation leads to a deletion of exons 2-7 of the EGFR gene and renders the mutant receptor incapable of binding any known ligand.

### **Assay Data**

### **Bis-Tris PAGE**



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

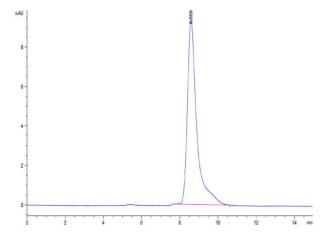
**SEC-HPLC** 

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# **Assay Data**

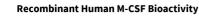


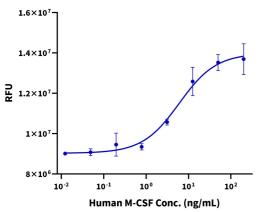
The purity of Human M-CSF is greater than 95% as determined by SEC-HPLC.

# KAGTUS

# **Assay Data**

### **Cell Based Assay**

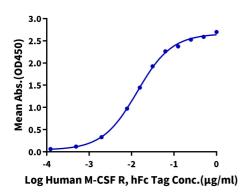




Measured in a cell proliferation assay using RAW264.7 cells.The ED50 for this effect is 1-10 ng/mL (QC Test).

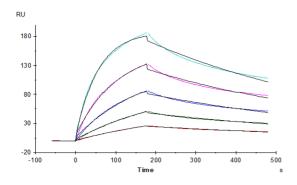
### **ELISA Data**

# **Human M-CSF, No Tag ELISA** 0.05μg Human M-CSF, No Tag Per Well



Immobilized Human M-CSF, No Tag at  $0.5\mu g/ml$  (100 $\mu l/Well$ ) on the plate. Dose response curve for Human M-CSF R, hFc Tag with the EC50 13.5ng/ml determined by ELISA.

### **SPR Data**



Human M-CSF, No Tag immobilized on CM5 Chip can bind Human M-CSF R, hFc Tag with an affinity constant of 2.06 nM as determined in SPR assay (Biacore T200).