

## GFR33AF Recombinant Rat MCSF (Animal-Free)

### Description

Macrophage Colony Stimulating Factor (MCSF) is a hematopoietic growth factor that is widely produced by a variety of cells. MCSF stimulates the proliferation and differentiation of hematopoietic stem cells into monocyte and macrophage cell types. MCSF also acts through the colony stimulating factor 1 receptor (CSF1R) to modulate processes involved in immunology, bone metabolism, fertility, and pregnancy.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

<b>Length</b>	156 / 312 aa
<b>Molecular Weight</b>	18.2 / 36.4 kDa
<b>Source</b>	E. coli
<b>Accession Number</b>	P07141
<b>Purity</b>	≥95% determined by reducing and non-reducing SDS-PAGE

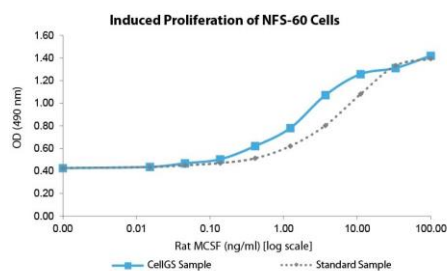
### Specifications

<b>Alternative Names</b>	Macrophage Colony Stimulating Factor, M-CSF, MGI-IM, CSF-1
<b>Biological Activity</b>	Rat MCSF (Animal-Free) is fully biologically active when compared to standard. The activity is determined by the ability to induce NFS-60 cells proliferation and it is typically less than 10 ng/ml. This corresponds to an expected specific activity of $1 \times 10^5$ units/mg.
<b>Endotoxin Level</b>	≤1.00 EU/μg as measured by kinetic LAL
<b>Formulation</b>	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
<b>AA Sequence</b>	MKEVSEHCSH MIGNGHLKVL QQLIDSQMET SCQIAFEFVD QEQLDDPVCY LKKAFFLVQD IIDETMRFKD NTPNANATER LQELSNLNS CFTKDYEEQN KACVRTFHET PLQLLEKIKN FFNETKNLLE KDWNIFTKNC NNSFAKCSSR DVVTKP

### Preparation and Storage

<b>Reconstitution</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
<b>Stability and Storage</b>	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

### Data



Induced proliferation of NFS-60 cells assay for Rat MCSF. Cell proliferation was measured to calculate the ED50, which is as expected less than 10 ng/ml.