

Recombinant Rat Csf1

Cat. No. Csf1-15R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Macrophage colony-stimulating factor 1/MCSF/Csf1 produced by transfected human cells is a secreted protein with sequence (Gln33-Arg254) of Rat MCSF.
Species	Rat
Source	Human Cells
ProteinLength	33-254 a.a.
Description	Rat Macrophage colony-stimulating factor 1(MCSF,CSF1) is a single-pass type I membrane cytokine. It is a hematopoietic growth factor 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. MCSF promotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and in inflammatory processes. It is involved in the regulation of osteoclast proliferation and differentiation, the regulation of bone resorption, and is required for normal bone development which for normal male and female fertility. It promotes reorganization of the actin cytoskeleton, regulates formation of membrane ruffles, cell adhesion and cell migration. MCSF also plays a role in lipoprotein clearance.
Form	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4
AA Sequence	EVSEHCSHMIGNGHLQILQQQLIDSQMETACLIEYKFVDQEQLDDPVCYLKKAFLVQ

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VIIETMR FKDNTPNANATERLQELSMKLNSCFIKDYKEQNEACVQTYKESPLRLLE
KIKNFFNETKNFLEKD WNIFSKNCNDSFAKCSSRDVVTKPDCNCLYPKATPSSDLAS
ASPHQPPAPSMAPLADLAWDDSQR TEGSSLLPSDLPLRIEDPGSAKQRPPR

Endotoxin

Less than 0.1 ng/g (1 IEU/g).

Purity

Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.

Storage

Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Reconstitution

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name

Csf1 colony stimulating factor 1 (macrophage) [*Rattus norvegicus* (Norway rat)]

Official Symbol

Csf1

Synonyms

Csf1; colony stimulating factor 1 (macrophage); macrophage colony-stimulating factor 1; CSF-1; MCSF; NP_076471.3; EC 2.7.10.1

Gene ID

78965

mRNA Refseq

NM_023981

Protein Refseq

NP_076471

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UniProt ID	Q8JZQ0
Chromosome Location	2q34
Pathway	Cytokine-cytokine receptor interaction; Cytokines and Inflammatory Response (BioCarta); Hematopoietic cell lineage
Function	cytokine activity; growth factor activity; macrophage colony-stimulating factor receptor binding

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