Leader in Biomolecular Solutions for Life Science

www.abclonal.com

Recombinant Mouse CSF-1/M-CSF Protein

Catalog No.: RP01216 Recombinant 13 Publications

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	12977	P07141-1

Tags
C-His

Synonyms
MCSF;M-CSF;CSF-1;Lanimostim;CSF1

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
30.19 kDa	40-55 kDa

Endotoxin
< 0.01 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

* □□□□□□□□□□□□□□□□□□□□□□□□□□□□□

Background

Macrophage colony-stimulating factor 1, also known as CSF-1, M-CSF, is a single-pass membrane protein which is disulfide-linked as a homodimer or heterodimer. Granulocyte / macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. M-CSF/CSF-1 is known to facilitate monocyte survival, monocyte-to-macrophage conversion, and macrophage proliferation. M-CSF/CSF-1 is a secreted cytokine which influences hemopoietic stem cells to differentiate into macrophages or other related cell types. It binds to the Colony stimulating factor 1 receptor. M-CSF/CSF-1 may also be involved in development of the placenta. The active form of M-CSF/CSF-1 is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. M-CSF/CSF-1 induces cells of the monocyte/macrophage lineage. It also plays a role in immunological defenses, bone metabolism, lipoproteins clearance, fertility and pregnancy. Upregulation of M-CSF/CSF-1 in the infarcted myocardium may have an active role in healing not only through its effects on cells of monocyte/macrophage lineage, but also by regulating endothelial cell chemokine expression.

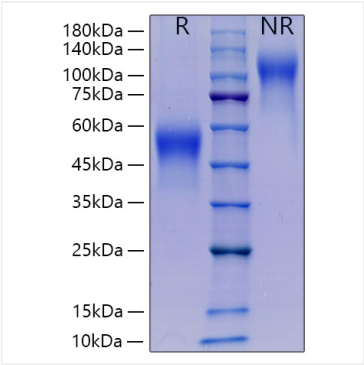
Basic Information

Description
Recombinant Mouse CSF-1/M-CSF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Glu262) of mouse M-CSF/CSF-1 (Accession #NP_031804.3.) fused with a 6×His tag at the C-terminus.

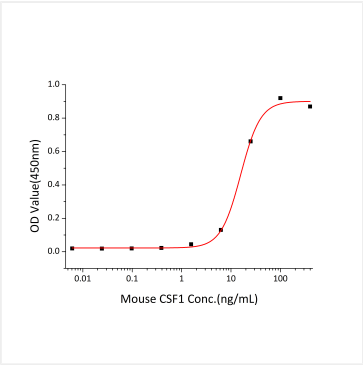
Bio-Activity
1.Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED_{50} for this effect is typically 0.1-0.4 ng/mL, corresponding to a specific activity of 2.5×10^6-1.0×10^7units/mg.|2.Measured in a cell proliferation assay using mouse bone marrow cells. The ED_{50} for this effect is 7.5-30.1 ng/mL, corresponding to a specific activity of 3.32×10^4~1.33×10^5 units/mg.|3.Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED_{50} for this effect is 2-8 ng/mL, corresponding to a specific activity of 12.5×10^4~5.0×10^5 units/mg.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

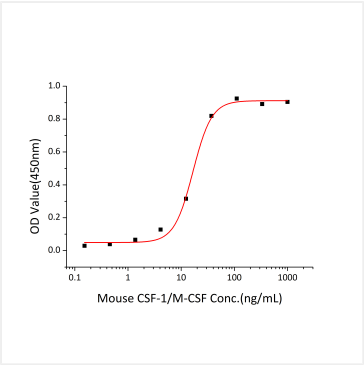
Validation Data



Recombinant Mouse CSF-1/M-CSF Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



Recombinant Mouse CSF-1/M-CSF stimulates cell proliferation of the mouse bone marrow cells. The ED_{50} for this effect is 7.5-30.1 ng/mL, corresponding to a specific activity of 3.32×10^4~1.33×10^5 units/mg.



Recombinant Mouse CSF-1/M-CSF stimulates cell proliferation of the M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED_{50} for this effect is 8.31-33.24 ng/mL, corresponding to a specific activity of 3.01×10^4~1.20×10^5 units/mg.