Recombinant Mouse CSF-1/M-CSF Protein (With Carrier)

Catalog No.: RP01216SC

Sequence Information

Species	Gene ID
Mouse	12977
Swiss Prot	**Tags**
P07141-1	NO-tag

Synonyms

Csf1, Csfm， Macrophage colony-stimulating factor 1, CSF-1, MCSF, Processed macrophage colony-stimulating factor 1

Product Information

Source	Purification
HEK293 cells	≥ 95% as determined by SDS-PAGE.
Calculated MW	**Observed MW**
21.44 kDa	20-25 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 with 50 μg BSA per 1 μg as a carrier protein.

Reconstitution

Reconstitute to a concentration of 100 μg/mL in sterile PBS. Avoid vortex or vigorously pipetting the protein. Aliquot the reconstituted protein solution to minimize free-thaw cycles.

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 (With Carrier) is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Pro187) of Mouse CSF-1/M-CSF (Accession #NP_031804.3.) fused with No tag.

Activity

Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED_{50} for this effect is 2.96-11.83 ng/mL, corresponding to a specific activity of 8.45×10^4~3.38×10^5 units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20℃

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

400-999-6126
cn.market@abclonal.com.cn
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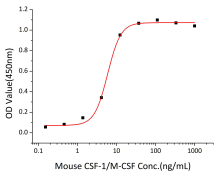
For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



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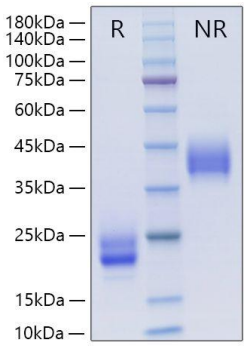
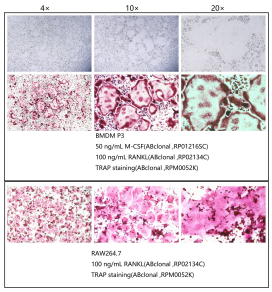


Recombinant Mouse CSF-1/M-CSF Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



Mouse bone marrow-derived BMDM P3 were used. Cells were induced with M-CSF (RP01216SC,50 ng/mL) for 3 days, followed by induction with M-CSF (RP01216SC, 50 ng/mL) plus RANKL (RP02134C,100 ng/mL) for 5 days (95 h).(top); RAW264.7 cells were treated with RANKL (RP02134C,100 ng/mL) and induced for 4 days (76 h). (below).