

Mouse M-CSF / CSF-1 Protein (ECD)



Sino Biological
Biological Solution Specialist

Catalog Number: 51112-MNAH

General Information

Gene Name Synonym:

C87615; Csfm; MCSF; op

Protein Construction:

A DNA sequence encoding the mouse CSF1 (P07141-1) (Met1-Glu262) was expressed.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Immobilized mouse CSF1 (Cat: 51112-MNAH) at 2 µg/ml (100 µl/well) can bind mouse CSF1R-Fch (Cat: 50059-M03H). The EC₅₀ of mouse CSF1R-Fch (Cat: 50059-M03H) is 60-220 ng/mL. 2. Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED₅₀ for this effect is typically 3-15 ng/mL.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Predicted N terminal: Lys 33

Molecular Mass:

The recombinant mouse CSF1 comprises 230 amino acids and has a predicted molecular mass of 26 kDa. The apparent molecular mass of the protein is approximately 45 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

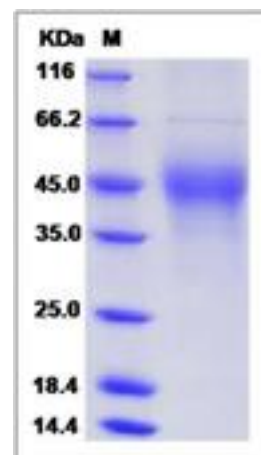
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Macrophage colony-stimulating factor 1, also known as CSF-1, M-CSF, Lanimostim and CSF1, 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.

References

1.Pandit J. et al., 1992, Science. 258: 1358-62. 2.Tokai M. et al., 2000, J Bacteriol. 182 (10): 2865-8. 3.Fan X. et al., 2001, Am J Physiol Endocrinol Metab. 280 (1): E103-11.