

Human M-CSF / CSF-1 Protein (Fc Tag)

Catalog Number: 11792-H02H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

M-CSF, CSF-1

Protein Construction:

A DNA sequence encoding the human CSF1 (NP_757349.1) (Met1-Arg255) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > (83.9±9.7) % as determined by SDS-PAGE.

Endotoxin:

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

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 33

Molecular Mass:

The recombinant human CSF1 consists 461 amino acids and predicts a molecular mass of 51.9 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

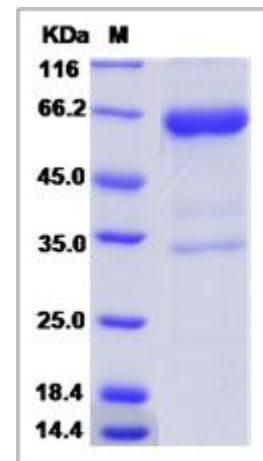
Usage Guide

Storage:

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

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

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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
4. Frangogiannis, N.G. et al., 2003, Am J Physiol Heart Circ Physiol. 285 (2): H483-92.
5. Cupp, J.S. et al., 2007, Am J Surg Pathol. 31 (6): 970-6.

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