



Recombinant Protein Technical Manual

Recombinant Human M-CSF/CSF1 Protein (Active)

RPES0785

Product Data:

Product SKU: RPES0785

Size: 10 μ g

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_757349.1

Protein Information:

Molecular Mass: 18.4 kDa

AP Molecular Mass:

Tag:

Bio-activity: Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 for this effect is typically 1.6-6.3 ng/mL.

Purity: > 85 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per μ g as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application: Cell Culture

Synonyms: Macrophage Colony-Stimulating Factor 1; CSF; M-CSF; MCSF; Lanimostim; CSF1;SCF

Immunogen Information:

Sequence: Met 1-Asn190

Background:

Macrophage colony-stimulating factor 1, also known as CSF, 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 is known to facilitate monocyte survival, monocyte-to-macrophage conversion, and macrophage proliferation. M-CSF/CSF 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 may also be involved in development of the placenta. The active form of M-CSF/CSF is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. M-CSF/CSF 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 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.