PRODUCT INFORMATION

Expression system Baculovirus

Domain 33-187aa

UniProt No. P07141

NCBI Accession No. NP_031804

Alternative Names

M-Csf, Macrophage colony-stimulating factor 1, CSF-1, MCSF, Csf1, C87615, MCSF, op, Processedmacrophage colony-stimulating factor 1

PRODUCT SPECIFICATION

Molecular Weight

19.1 kDa (164aa)

Concentration

1mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity > 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a cell proliferation assay using M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 for this effect is \leq 4ng/ml.

Tag

His-Tag

Application SDS-PAGE, Bioactivity

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Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.



BACKGROUND

Description

M-CSF, also known as macrophage colony-stimulating factor 1 isoform 1, is one of the hematopoietic growth factors that regulate the growth and differentiation of blood cells. This protein is produced by monocytes, granulocytes, endothelial cells, and fibroblasts. It stimulates the formation of macrophage colonies, enhancesantibody-dependent, cell-mediated cytotoxicity by monocytes and macrophages, and inhibits bone resorption byosteoclasts. It plays an essential role in the regulation of survival, proliferation and differentiation ofhematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes. This proteinpromotes the release of proinflammatory chemokines, and thereby plays an important role in innate immunity and ininflammatory processes. Recombinant mouse M-CSF, fused to His-tag at C-terminus, was expressed in insect celland purified by using conventional chromatography techniques.

Amino acid Sequence

<ADP>KEVSEHC SHMIGNGHLK VLQQLIDSQM ETSCQIAFEF VDQEQLDDPV CYLKKAFFLV QDIIDETMRF KDNTPNANAT ERLQELSNNL NSCFTKDYEE QNKACVRTFH ETPLQLLEKI KNFFNETKNL LEKDWNIFTK NCNNSFAKCS SRDVVTKP<HH HHHH>

General References

Richardsen E., et al. (2018) Anticancer Res. 35(2):865-874. Braza MS., et al. (2018) Am J Transplant. 18:1247-1255.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition andvisualized by coomassie blue stain.

Biological Activity



Mouse M-CSF stimulates cell proliferation of the M-NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED50 range is \leq 4 ng/ml.