Active Colony Stimulating Factor 1, Macrophage (MCSF) Instruction Manual

SBPA060Mu61

Mus musculus (Mouse)

Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	5.1
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

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                                        KEVSEHCS HMIGNGHLKV
LQQLIDSQME TSCQIAFEFV DQEQLDDPVC YLKKAFFLVQ DIIDETMRFK
DNTPNANATE RLQELSNNLN SCFTKDYEEQ NKACVRTFHE TPLQLLEKIK
NFFNETKNLL EKDWNIFTKN CNNSFAKCSS RDVVTKPDCN CLYPKATPSS
DPASASPHQP PAPSMAPLAG LAWDDSQRTE GSSLLPSELP LRIEDPGSAK
QRPPRSTCQT LE
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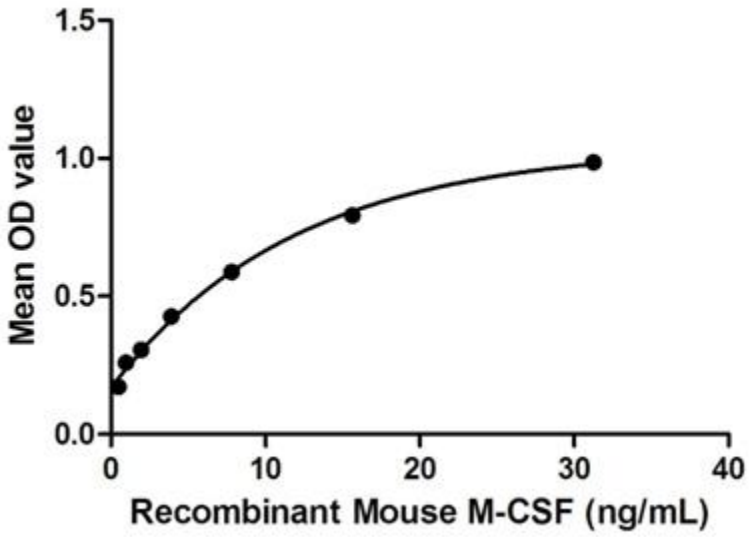

Macrophage Colony Stimulating Factor (M-CSF), also known as CSF-1, is a secreted cytokine which influences hematopoietic stem cells to differentiate into macrophages or other related cell types. M-CSF (or CSF-1) is a hematopoietic growth factor that is

involved in the proliferation, differentiation, and survival of monocytes, macrophages, and bone marrow progenitor cells. It can also affects macrophages and monocytes in several ways, including stimulating increased phagocytic and chemotactic activity, and increased tumour cell cytotoxicity. The role of M-CSF is not only restricted to the monocyte/macrophage cell lineage. By
interacting with its membrane receptor (CSF-1R or M-CSF-R encoded by the c-fms proto-oncogene), M-CSF also modulates the proliferation of earlier hematopoietic progenitors and influence numerous physiological processes involved in immunology, metabolism, fertility and pregnancy. Besides, Colony Stimulating Factor Receptor, Macrophage (M-CSF-R) has been identified as an interactor of M-CSF, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse M-CSF and recombinant mouse M-CSF-R. Briefly, M-CSF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to M-CSF-R coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-M-CSF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of M-CSF and M-CSF-R was shown in Figure 1, and this effect was in a dose dependent manner.
Figure 1. The binding activity of M-CSF with M-CSF-R.

USAGE

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

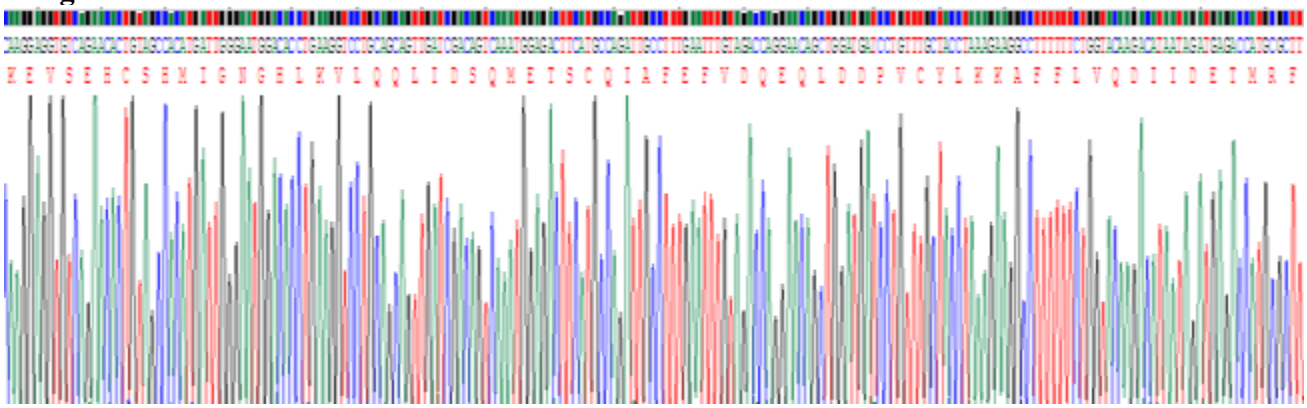

Figure. SDS-PAGE

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.