

## Colony Stimulating Factor 1, Macrophage (MCSF) Active Protein | MCSF active protein

Active Colony Stimulating Factor 1, Macrophage (MCSF)

|                               |                          |                                                     |
|-------------------------------|--------------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA150971</b> | HOST<br><b>293F Cell</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|--------------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

Colony Stimulating Factor 1; Macrophage (MCSF); Active Colony Stimulating Factor 1; MCSF/Colony Stimulating Factor 1; Macrophage; CSF1; M-CSF; Lanimostim; Processed macrophage colony-stimulating factor 1; MCSF active protein

### PRODUCT SPECIFICATIONS

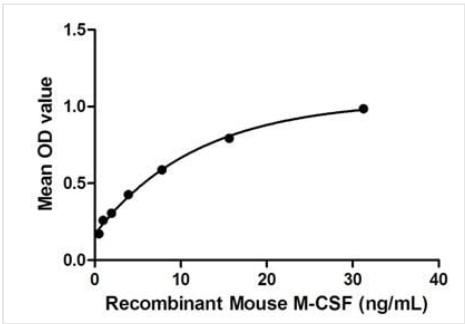
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | 293F Cell                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Purity/Purification                             | Greater than 95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Form/Format                                     | Freeze-dried powder<br>PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                             |
| Sequence                                        | Lys33~Glu2 62                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Applicable Applications for MCSF active protein | Activity Assay, Cell Culture                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Endotoxin                                       | <1.0EU per 1ug (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                              |
| Tag                                             | N-terminal His Tag                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Biological Activity                             | Active                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Expression System                               | Eukaryotic expression                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Organism Species                                | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Isoelectric Point                               | 5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Subcellular Location                            | Secreted                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Reconstitution                                  | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                                        |
| Preparation and Storage                         | Store at 2-8 degree C for one month, -80 degree C for 12 months<br>Stable for 12 months if correctly stored.<br>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 degree 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. |

IMAGES

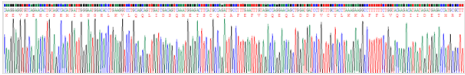
Sequence

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DNTPNANATE RLQELSNLN SCFTKDYEEQ NKACVRFHE TPLQLEKIK  
NFFNETKNLL EKDWNIFTKN CNNSFAKCSS RDVVTKPCDN CLYPKATPSS  
DPASASPHQP PAPSMAFLAG LAWDDSQRTE GSSLLPSELP LRIEDPGSAK  
QRPPRSTCQT LE

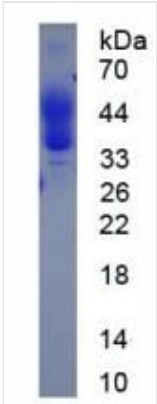
KEVSEHCS HMIGNHGLKV



Bioactivity  
The binding activity of M-CSF with M-CSF-R.



Sequence  
Gene Sequencing (extract)



SDS-PAGE  
SDS-PAGE

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for MCSF active protein | 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 affect 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 100 uL were then transferred to M-CSF-R coated microtiter wells and incubated for 2 h at 37 degree C. Wells were washed with PBST and incubated for 1 h 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 degree C. Finally, add 50 uL stop solution to the wells and read at 450 nm 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. |
| Product Categories/Family for MCSF active protein   | Cytokine; Infection immunity; Active, eukaryotic recombinant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

NCBI AND UNIPROT INFORMATION

|                  |                |
|------------------|----------------|
| NCBI GI #        | 166064046      |
| NCBI GeneID      | 12977          |
| NCBI Accession # | NP_001107001.1 |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| NCBI GenBank Nucleotide #        | NM_001113529.1                                        |
| UniProt Accession #              | P07141; Q3U395; Q8R3C8                                |
| Molecular Weight                 | 29,353 Da                                             |
| NCBI Official Full Name          | macrophage colony-stimulating factor 1 isoform 2      |
| NCBI Official Synonym Full Names | colony stimulating factor 1 (macrophage)              |
| NCBI Official Symbol             | Csf1                                                  |
| NCBI Official Synonym Symbols    | op; Csfm; MCSF; C87615                                |
| NCBI Protein Information         | macrophage colony-stimulating factor 1; osteopetrosis |
| UniProt Protein Name             | Macrophage colony-stimulating factor 1                |
| UniProt Gene Name                | Csf1                                                  |
| UniProt Synonym Gene Names       | Csfm; CSF-1; MCSF                                     |
| UniProt Entry Name               | CSF1_MOUSE                                            |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/293f-cell-active-protein/colony-stimulating-factor-1-macrophage-mcsf/150971>