

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

Active Colony Stimulating Factor 1, Macrophage (MCSF)

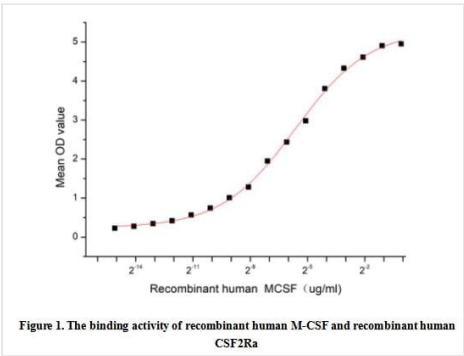
CATALOG # AAA161683	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Colony Stimulating Factor 1; Macrophage (MCSF); Active Colony Stimulating Factor 1; Macrophage; CSF1; M-CSF; Lanimostim; Processed macrophage colony-stimulating factor 14; MCSF active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Glu33~Asn1 90
Applicable Applications for MCSF active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	4.6
Research Area	Cytokine, Infection immunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

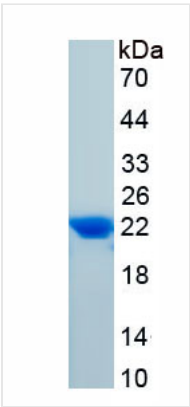


Bioactivity

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. By interacting with its membrane receptor (CSF1R 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. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human M-CSF and recombinant human Colony Stimulating Factor 2 Receptor Alpha (CSF2Ra). Briefly, biotin-linked M-CSF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CSF2Ra-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 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 450/630 nm immediately. The binding activity of recombinant human M-CSF and recombinant human CSF2Ra was shown in Figure 1, the EC50 for this effect is 0.02 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for MCSF active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	181135
NCBI GeneID	1435
UniProt Accession #	P09603; Q13130; Q14086; Q14806; Q5VVF3; Q5VVF4; Q9UQR8; A8K6J5
Molecular Weight	60,179 Da
NCBI Official Full Name	colony-stimulating factor (CSF-1)
NCBI Official Synonym Full Names	colony stimulating factor 1 (macrophage)
NCBI Official Symbol	CSF1
NCBI Official Synonym Symbols	MCSF; CSF-1
NCBI Protein Information	macrophage colony-stimulating factor 1; lanimostim
UniProt Protein Name	Macrophage colony-stimulating factor 1
UniProt Gene Name	CSF1
UniProt Synonym Gene Names	CSF-1; M-CSF; MCSF
UniProt Entry Name	CSF1_HUMAN

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/e-coli-active-protein/colony-stimulating-factor-1-macrophage-mcsf/161683>