

Macrophage Colony stimulating Factor Active Protein | Csf1 active protein

Mouse Macrophage Colony stimulating Factor Recombinant

CATALOG #	HOST
AAA76388	E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)

PRODUCT SYNONYMS

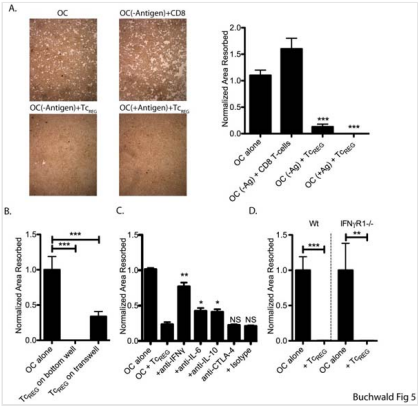
Macrophage Colony stimulating Factor; Mouse Macrophage Colony stimulating Factor Recombinant; Csf1 active protein

PRODUCT SPECIFICATIONS

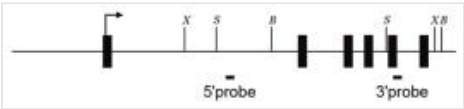
Host	E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant mouse MCSF was lyophilized from a 0.2 um filtered PBS solution.
Source	Optimized DNA sequence encoding mouse M-CSF extracellular domain was expressed in Escherichia Coli.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Biological Activity	The ED(50) was determined by the dose-dependent stimulation of the proliferation of M-NFS-60 cells is < 1.0 ng/ml, corresponding to a specific activity of > 1 x 106 units/mg.
Method	Cell activation assay and immunodetection of cytokines Single spleen cell suspensions were prepared by mechanical disruption on a cell strainer (70 um pore diameter,,) in Dulbecco's D-PBS. Red blood cells were lysed using Hemolytic Gey's Solution as previously described Osteoclastogenesis assays Osteoclastogenesis assays were performed as in 5 cells were plated in each well of a 24-well dish with 60 ng/mL RANKL for 3 days. After 3 days, 2x103 MDA-231, shControl, or shEGFR-MDA-231 cells were plated with the bone marrow cells, with 60 ng/mL RANKL and 10 ng/mL MCSF and grown for 3 days before TRAP staining. For TRAP staining, cells were washed with 1xPBS, fixed with ice cold methanol for 10 minutes, and stained in fresh TRAP solution for 15 minutes at 37 degree C. TRAP solution was replaced with 1xPBS for cell counting under the microscope. Generation of bone marrow-derived macrophages Bone marrow-derived macrophages (BMDM) were generated by flushing the bone marrow from the femurs of BALB/c mice with RPMI 1640 media. Freshly collected bone marrow cells were cultured overnight in complete media (CM; RPMI 1640, 10% fetal bovine serum [Atlanta,], 10 mM HEPES buffer, 10 mM nonessential amino acids, 10 mM sodium pyruvate) containing 5 ng/ml recombinant murine M-CSF. The non-adherent cells were then collected and cultured for an additional six days in CM with 30 ng/ml M-CSF to generate macrophages. Induction of 2nd iPSCs All isolated somatic cells were cultured in the presence of Dox (2 ug/ml) for induction of 2nd iPSCs. Fibroblasts and hematopoietic cells were cultured in ES/iPSC medium. FLCD45 were cultured in the presence of 10 ng/ml human TPO, 10 ng/ml mouse EPO, 10 ng/ml mouse IL-3, 10 ng/ml mouse IL-6, 10 ng/ml mouse Flt3 ligand, 10 ng/ml mouse GM-CSF, 10 ng/ml mouse VEGF and 50 ng/ml mouse SCF. HSCs, HPCs and MPs were cultured in the presence of 10 ng/ml human TPO, 10 ng/ml mouse IL-3, 10 ng/ml mouse IL-6 and 10 ng/ml mouse Flt3 ligand. Macrophages were cultured in the presence of 5 ng/ml M-CSF.
Molecular Function	Cytokine, Growth-factor
Biological Process	Immunity, Inflammatory-response

Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree -8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

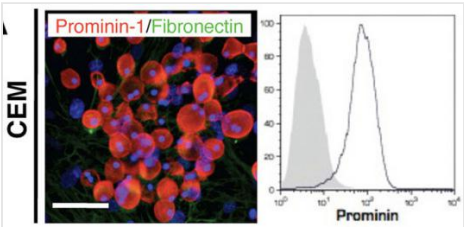
IMAGES



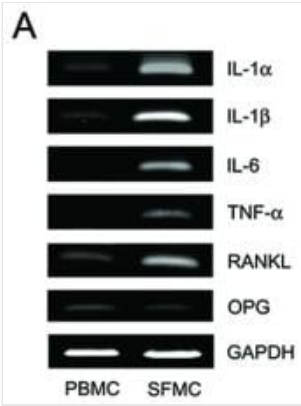
Application Data
TcREG inhibit osteoclast activity in an antigen- and contact-independent manner by secreted cytokines.Cells were re-fed with medium containing M-CSF and RANKL every 2 to 3 days.



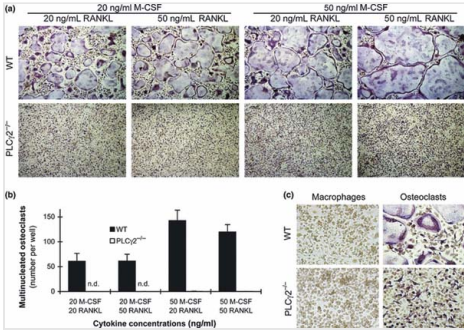
Application Data



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Lung-derived proliferin-1.Exposure of proliferin-1+ cells to M-CSF for 7 days resulted in formation of E.coli phagocytising F4/80-positive cells .



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Pro-resorptive cytokine expression and osteoclastogenesis in the synovial fluid of patients with gouty arthritis.PBMCs, SFMCs, and T cell-depleted SFMCs (3 × 105 cells/well) were cultured for 10 days in the presence of macrophage colony-stimulating factor (M-CSF; 30 ng/ml) at the different RANKL concentrations and then were stained for tartrate-resistant acid phosphatase .



Application Data
PLC2 is required for in vitro osteoclast development.(a) Representative TRAP-stained images of wild-type and PLC2-/- bone marrow cells cultured in the presence of the indicated concentrations of recombinant murine M-CSF and RANKL for 4 days.

ADDITIONAL INFORMATION

Product Categories/Family for Csf1 active protein	PDGF family; PDGF family; Recombinant Mouse Cytokines
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NCBI AND UNIPROT INFORMATION

NCBI GI #	166064046
NCBI GeneID	12977
NCBI Accession #	NP_001107001.1
NCBI GenBank Nucleotide #	NM_001113529.1
UniProt Accession #	P07141; P03228; P09581 CSF1R_MOUSE; P46414; P07333 CSF1R_HUMAN
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://www.aaabiotech.com/e-coli-active-protein/macrophage-colony-stimulating-factor/76388>