

Active Recombinant Human CSF1 protein, His-tagged

Cat. No. CSF1-2160H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CSF1 protein(P09603)(33~190 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	33-190 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	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

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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°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30 min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µstop 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, the EC50 for this effect is 0.02 ug/mL.

Molecular Mass	22.1kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	CSF1 colony stimulating factor 1 (macrophage) [Homo sapiens]
Official Symbol	CSF1
Synonyms	CSF1; colony stimulating factor 1 (macrophage); macrophage colony-stimulating factor 1; M CSF; MCSF; MGC31930; lanimostim; CSF-1;
Gene ID	1435

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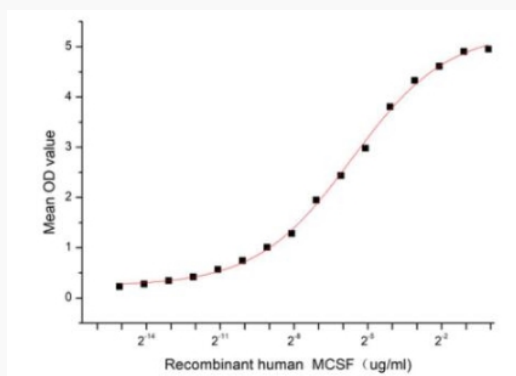
mRNA Refseq [NM_000757](#)

Protein Refseq [NP_000748](#)

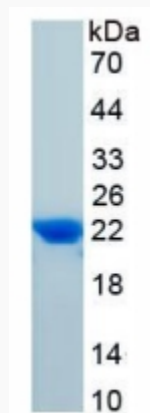
MIM [120420](#)

UniProt ID [P09603](#)

Activity



SDS-PAGE



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