

Active Recombinant Human CSF2 protein, His-GST-tagged

Cat. No. CSF2-785H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CSF2 protein(P04141)(18~144 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	18-144 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Granulocyte-macrophage colony-stimulating factor (GM-CSF), also known as colony stimulating factor 2 (CSF2), is a monomeric glycoprotein secreted by macrophages, T cells, mast cells, natural killer cells, endothelial cells and fibroblasts that functions as a cytokine. GM-CSF is a monomeric glycoprotein that functions as a cytokine - it is a white blood cell growth factor. It also has some effects on mature cells of the immune system, such as inhibiting neutrophil migration and causing an alteration of the receptors expressed on the cells surface. GM-CSF signals via signal transducer and activator of transcription, STAT5. In macrophages, it has also been shown to signal via STAT3. Besides, Colony Stimulating Factor 2 Receptor Alpha (CSF2Ra) has been identified as an interactor of GM-CSF, thus a binding ELISA assay was conducted to detect the interaction of recombinant human GM-CSF and recombinant human CSF2Ra. Briefly, GM-CSF were diluted serially in PBS, with 0.01% BSA (pH 7.4).

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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 and incubated for 1h with anti-GM-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°C. Finally, add 50 µ stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human GM-CSF and recombinant human CSF2Ra was shown, the EC50 for this effect is 0.04 ug/mL.

Molecular Mass	44.5kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90% 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	CSF2 colony stimulating factor 2 (granulocyte-macrophage) [Homo sapiens]
Official Symbol	CSF2
Synonyms	CSF2; colony stimulating factor 2 (granulocyte-macrophage); granulocyte-macrophage colony-stimulating factor; GM CSF; GMCSF; granulocyte macrophage colony stimulating factor; molgramostin; sargramostim; CSF; colony-stimulating factor; granulocyte-macrophage colony stimulating factor; MGC131935; MGC138897;

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Gene ID 1437

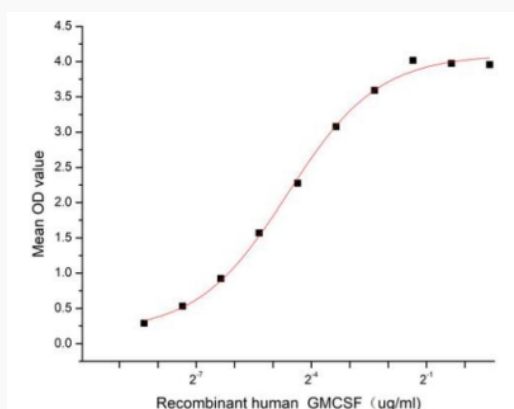
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Protein Refseq NP_000749

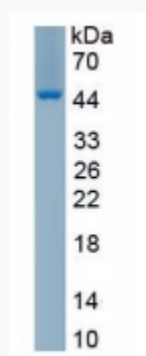
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UniProt ID P04141

Activity



SDS-PAGE



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