

Active Recombinant Rat Csf2 protein, His-GST-tagged

Cat. No. Csf2-786R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Csf2 protein(P48750)(18~144 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
Species	Rat
Source	E.coli
ProteinLength	18-144 aa
Form	Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 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 stimulates stem cells to produce granulocytes (neutrophils, eosinophils, and basophils) and monocytes. It also has some effects on mature cells of the immune system. These include, for example, 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 rat GM-CSF and recombinant rat CSF2Ra. Briefly, GM-CSF were diluted serially in PBS, with

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0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to CSF2Ra-coated microtiter wells and incubated for 2h 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 50μ stop solution to the wells and read at 450nm immediately. The binding activity of GM-CSF and CSF2Ra was shown, and this effect was in a dose dependent manner.

Molecular Mass	44.5kDa
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

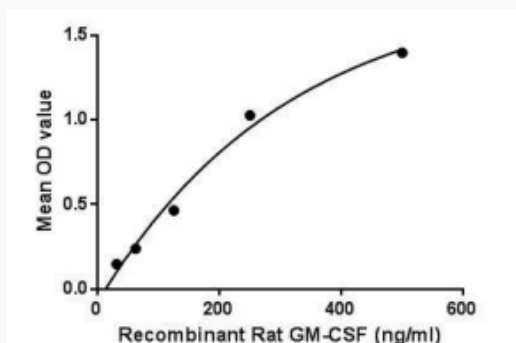
Gene Name	Csf2 colony stimulating factor 2 (granulocyte-macrophage) [Rattus norvegicus]
Official Symbol	Csf2
Synonyms	CSF2; colony stimulating factor 2 (granulocyte-macrophage); granulocyte-macrophage colony-stimulating factor; CSF; colony-stimulating factor; Gmcsf; Gm-csf;
Gene ID	116630

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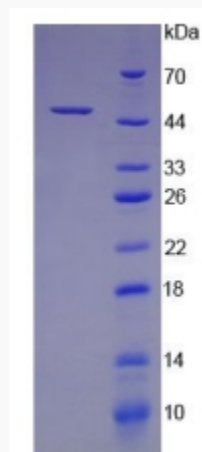
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Activity



SDS-PAGE



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