Active Recombinant Rat Csf3 protein, His-tagged

Cat. No. Csf3-2163R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Csf3 protein(P97712)(22~198 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Rat
Source	E.coli
ProteinLength	22-198 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	G-CSF is a pleiotropic cytokine best known for its specific effects on the proliferation, differentiation, and activation of hematopoietic cells of the neutrophilic granulocyte lineage. It is produced mainly by monocytes and macrophages upon activation by endotoxin, TNF-alpha and IFN-gamma. In addition, various carcinoma cell lines and myeloblastic leukemia cells can express G-CSF constitutively. In vitro, G-CSF stimulates growth, differentiation and functions of cells from the neutrophil lineage. Consistent with its in vitro functions, G-CSF has been found to play important roles in defense against infection, in inflammation and repair, and in the maintenance of steady state hematopoiesis. The activity of G-CSF is usually measured by a cell proliferation assay using M-NFS 60 mouse myelogenous leukemia lymphoblast cells. M-NFS 60 cells were seeded into triplicate wells of 96-well plates at a density of 8,000 cells/well with 2% serum standard 1640 which contains various concentrations

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	of recombinant rat G-CSF. After incubated for 3 days, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 µof CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 2-4 hours at 37°C. Proliferation of M-NFS-60 cells after incubation with G-CSF for 3 days observed by inverted microscope was shown. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant rat G-CSF for 3 days. It was obvious that G-CSF significantly increased cell viability of M-NFS-60 cells. The EC50 is 0.63 ng/ml.
Molecular Mass	19.5kDa
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	Csf3 colony stimulating factor 3 (granulocyte) [Rattus norvegicus]
Official Symbol	Csf3
Synonyms	CSF3; colony stimulating factor 3 (granulocyte); granulocyte colony-stimulating factor;
Gene ID	25610

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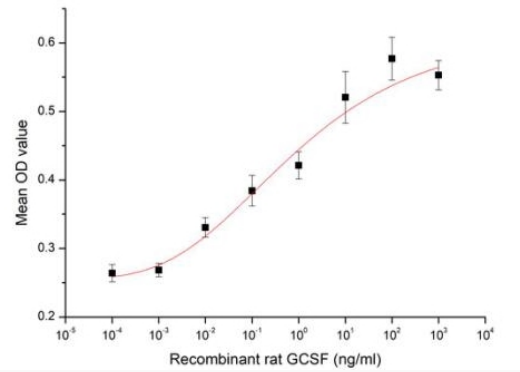
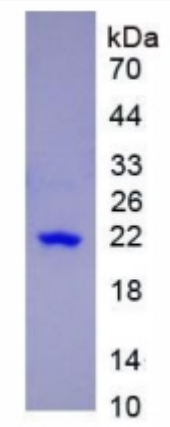
mRNA Refseq	NM_017104
Protein Refseq	NP_058800
Activity	
SDS-PAGE	

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