

Active Recombinant Human CSF2

Cat. No. CSF2-23H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CSF2 was produced in rice suspension cells (<i>Oryza sativa</i> L. cv. Dongjin).
Species	Human
Source	Rice
Description	Granulocyte macrophage colony-stimulating factor (GM-CSF) is a hematopoietic growth factor produced by various cell types such as T and B cells, macrophages, endothelial cells and fibroblasts, in response to cytokine or inflammatory stimuli. GM-CSF stimulates the development of granulocytes and macrophages, and the proliferation and development of erythroid, megakaryocyte and eosinophil progenitors. It also enhances functional activity of mature hematopoietic cells. GM-CSF is of great clinical value in reconstitution of the hematopoietic system following cancer therapy or bone marrow transplantation.
Form	Sterile filtered through a 0,2 µm filter. Lyophilized from PBS, pH 7.2
Bio-activity	Human GM-CSF is measured by its dose-dependent effect on the proliferation of TF-1 cells. The ED50 for this effect is typically below 0.2 ng/ml corresponding to specific activity of >5 x 10e6 U/mg. We recommend that the optimal concentration for each specific application be determined by an initial dose-response assay.
Molecular Mass	Recombinant human GM-CSF contains 127 amino acids in protein and no amino acid in tag. MW is 14KDa without glycosylation and around 26KDa with glycosylation.

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Endotoxin	Endotoxin level is less than 0.005ng per µg of product (0.05EU/µg) as measured by LAL assay.
Purity	Greater than 95% by SDS-PAGE gel analysis.
Storage	The lyophilized protein, though stable at room temperature for few weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.
Reconstitution	Always centrifuge the vial before opening. It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

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;
Gene ID	1437
mRNA Refseq	NM_000758
Protein Refseq	NP_000749
MIM	138960

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UniProt ID	P04141
Chromosome Location	5q23-q31
Pathway	Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem; Calcium signaling in the CD4+ TCR pathway, organism-specific biosystem; Cytokine Signaling in Immune system, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem;
Function	cytokine activity; granulocyte macrophage colony-stimulating factor receptor binding; growth factor activity; protein binding;

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