

Recombinant Mouse Colony Stimulating Factor 2 (granulocyte-macrophage)

Cat. No. Csf2-370M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse Csf2 is a disulfide-linked monomer protein, consisting of 125 amino acids and migrates as an approximately 14 kDa protein under reducing conditions, and was lyophilized from 0.2 µm filtered PBS solution, pH 7.0.
Species	Mouse
Source	Mouse
Description	Csf2 is a monomeric protein of 127 amino acids with two glycosylation sites. The protein is synthesized as a precursor of 144 amino acids, which included a hydrophobic secretory signal sequence at the aminoterminal end. The sugar moiety is not required for the full spectrum of biological activities. Non-glycosylated and glycosylated Csf2 show the same activities in vitro. Fully glycosylated Csf2 is biologically more active in vivo than the non-glycosylated protein. This protein is secreted together with other factors by T-cells and macrophages following cell activation by antigens or mitogens.
Purity	>95%, as determined by SDS-PAGE and HPLC.
Sequence	MWLQNLLFLGIVVYSLSAPT RSPITVTRPW KHVEAIKEAL NLLDDMPVTL NEEEVVSNE FSFKKLTCVQ TRLKIFEQGLRGNFTKLKGA LNMTASYQQT YCPPTPETDC ETQVTTYADF IDSLKTFLTD IPFECKKPGQ K
Molecular Weight	Native Mouse Granulocyte Macrophage-Colony Stimulating Factor is generated by the

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	proteolyticremoval of the signal peptide and propeptide, this molecule has a calculated massof 14 kDa.
Biological Activity	The ED50 asdetermined by the dose-dependent stimulation of the proliferation of murineFDC-P1 cells is $\leq 0.1\text{ng/ml}$, corresponding to a specific activity of $\geq 3 \times 10^6\text{units/mg}$.
Endotoxin	Endotoxincontent was assayed using a LAL gel clot method. Endotoxin level was foundto be less than $0.1 \text{ ng/g}(1\text{EU/g})$.
Reconstitution	A quick spin of thevial followed by reconstitution in distilled water to a concentration notless than 0.1 mg/mL . This solution can then be diluted into other buffers.
Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20°C . Upon reconstitution, this cytokine can be stored in working aliquots at $2^\circ\text{C} - 8^\circ\text{C}$ for one month, or at -20°C for six months, with a carrier proteinwithout detectable loss of activity. Avoid repeated freeze/thaw cycles.
OfficialSymbol	Csf2
Pathways	Amoebiasis;Cytokine Signaling in Immune system; Cytokine-cytokine receptor interaction; Fcepsilon RI signaling pathway; HTLV-I infection; Hematopoietic cell lineage; ImmuneSystem; Interleukin receptor SHC signaling; Interleukin-2 signaling; Jak-STATsignaling pathway; Natural killer cell mediated cytotoxicity; Rheumatoidarthritis; Salmonella infection; Signaling by Interleukins; T cell receptorsignaling pathway

GENE INFORMATION

Gene Name Csf2 colony stimulating factor 2 (granulocyte-macrophage)[*Mus musculus*]

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Synonyms	Csf2; colony stimulating factor 2 (granulocyte-macrophage);Csfgm;Gm-CSf; MGI-IGM; MGC151255; MGC151257; granulocyte-macrophagecolony-stimulating factor; CSF; put. GM-CSF; OTTMUSP00000005830;colony-stimulating factor; granulocyte-macrophage colony stimulating factor 2
Gene ID	12981
mRNA Refseq	NM_009969
Protein Refseq	NP_034099
UniProt ID	P01587
Function	cytokineactivity; granulocyte macrophage colony-stimulating factor receptor binding; growthfactor activity
PDBrendering based on 2gmf	

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