

Active Recombinant Mouse Colony Stimulating Factor 3 (Granulocyte)

Cat. No. Csf3-273M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Csf3 produced in E.coli is a single, non-glycosylated, polypeptide chain containing 179 amino acids and having a molecular mass of 19 kDa.
Species	Mouse
Source	E.coli
Description	A glycoprotein containing internal disulfide bonds. It induces the survival, proliferation, and differentiation of neutrophilic granulocyte precursor cells and functionally activates mature blood neutrophils. Among the family of colony-stimulating factors, Csf3 is the most potent inducer of terminal differentiation to granulocytes and macrophages of leukemic myeloid cell lines. The synthesis of Csf3 can be induced by bacterial endotoxins , TNF , Interleukin-1 and GM-CSF . Prostaglandin E2 inhibits the synthesis of Csf3.
Form	Lyophilized with no additives.
Purity	Purity Greater than 98% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	Mouse recombinant Csf3 is fully biologically active when compared to standard. The ED50, calculated by the dose-dependant proliferation of mouse M-NFS-60 cells, is 0.04 ng/ml.

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Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.
Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg"/ml, which can be further diluted into other aqueous solutions.
Purity Greater than 98% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Amino acid sequence	MVPLVTVSAL PPSLPLPRSF LLKSLEQVRK IQASGSVLE QLCATYKLCH PEELVLLGHS LGIPKASLSG CSSQALQQTQ CLSQLHSGLC LYQGILLQALS GISPALAPTL DLLQLDVANF ATTIWQQMEN LGVAPTQPT QSAMPAFTSA FQRRAGGVLA ISYLQGFLET ARLALHHLA
Storage	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.
Pathways	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway

GENE INFORMATION

Gene Name **Csf3 colony stimulating factor 3 (granulocyte) [Mus musculus]**

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Official Symbol	Csf3
Synonyms	Csf3; colony stimulating factor 3 (granulocyte); Csfg; G-CSF; MGI-IG; colony stimulating factor 3; OTTMUSP00000006785
Gene ID	12985
mRNA Refseq	NM_009971
Protein Refseq	NP_034101
UniProt ID	P09920
Chromosome Location	11 D; 11 57.0 cM
Function	Cytokine activity; Growth factor activity

Crystal structure of 3 molecules of human Csf3. From PDB 1rhg

