

Recombinant Porcine CSF2

Cat. No. CSF2-93P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Porcine Granulocyte Macrophage Colony Stimulating Factor produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 14381 Dalton. GM-CSF Porcine Recombinant is purified by proprietary chromatographic techniques.
Species	Pig
Source	E.coli
Description	GMCSF is a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. The active form of the protein is found extracellularly as a homodimer. This gene has been localized to a cluster of related genes at chromosome region 5q31, which is known to be associated with interstitial deletions in the 5q- syndrome and acute myelogenous leukemia. Other genes in the cluster include those encoding interleukins 4, 5, and 13. GM-CSF stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Thr-Arg-Pro.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	Porcine GM-CSF was lyophilized with no additives.
Solubility	It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 18 MΩ-cm H ₂ O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Specific Activity	The ED ₅₀ range= 15-30 ng/ml, determined by the dose dependent proliferation of TF-1 cells.
Protein Content	GMCSF quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.977 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of GM-CSF as a Reference Standard.
Stability	Lyophilized Granulocyte Macrophage Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GMCSF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	CSF2 colony stimulating factor 2 (granulocyte-macrophage) [<i>Sus scrofa</i>]
Synonyms	colony stimulating factor 2 (granulocyte-macrophage); CSF2; GM-CSF; colony stimulating factor 2; granulocyte-macrophage colony-stimulating factor
Gene ID	397208
mRNA Refseq	NM_214118

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Protein Refseq	NP_999283
UniProt ID	Q29118
Pathway	Cytokine-cytokine receptor interaction; Fc epsilon RI signaling pathway; Hematopoietic cell lineage; Jak-STAT signaling pathway; Natural killer cell mediated cytotoxicity; T cell receptor signaling pathway
PDB rendering based on 2gmf	