

Recombinant Porcine Granulocyte Macrophage Colony Stimulating Factor (rp GM-CSF)

Synonyms: CSF-2, MGI-1GM, Pluripoietin-alpha, Molgramostin, Sagramostim

Introduction: GM-CSF 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.

Description: Recombinant porcine GM-CSF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 14.4 kDa. Recombinant porcine GM-CSF is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.22 µm filtered solution in 25 mM sodium acetate, pH 5.7. The aliquots of 1 µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized GM-CSF in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rp GM-CSF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C . Upon reconstitution rp GM-CSF 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.

Purity: Greater than 95.0% as determined by RP-HPLC and by SDS-PAGE.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

Amino acid sequence: APTRPPSPVT RPWQHVDIAK EALSLNNSN DTAVMNETV DVVCEMFDPQ EPTCVQTRLN LYKQGLRGSL TRLKSPLTLL AKHYEQHCPL TEETSCETQS ITFKSFKDSL NKFLFTIPFD CWGPVKK

Biological Activity: Determined by the dose dependant stimulation of the proliferation TF-1 cell line the ED50 was found to be 15-30 ng/ml.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	16343122
<i>medium</i>	10 µg	Cat.N°	16343123
<i>large</i>	50 µg	Cat.N°	16343125
<i>x-large</i>	250 µg	Cat.N°	16343127
<i>xx-large</i>	1000 µg	Cat.N°	16343128

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