

## 32-1282: GM CSF Pichia Recombinant Protein

**Alternative Name :** CSF-2,MGI-1GM,GM-CSF,Pluripoietin-alpha,Molgramostin,Sargramostim,MGC131935,MGC138897.

### Description

Source : Pichia Pastoris. Granulocyte Macrophage Colony Stimulating Factor Human Recombinant produced in Yeast is a single, glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 26-32 kDa. rhGMCSF differs from the natural human GM-CSF by a substitution of leucine at position 23 (R to L), and the carbohydrate moiety may be different from the native protein. GM-CSF is purified by proprietary chromatographic techniques. 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.

### Product Info

<b>Amount :</b>	10 µg
<b>Purification :</b>	Greater than 97.0% as determined by 1. Analysis by RP-HPLC. 2. Analysis by SDS-PAGE.
<b>Content :</b>	The protein was lyophilized from a concentrated (1mg/ml) solution containing 10mM phosphate buffer pH 7.0, 40 mg mannitol and 10 mg sucrose.
<b>Storage condition :</b>	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.
<b>Amino Acid :</b>	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Ala-Arg-Ser.

### Application Note

It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. The ED<sub>50</sub> as determined by the dose-dependant stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) is < 0.183 ng/ml, corresponding to a Specific Activity of 5,500,000IU/mg.

