

Granulocyte Macrophage-Colony Stimulating Factor Human Recombi-

Item Number	rAP-2144
Synonyms	CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, Molgramostin, Sargramostim, MGC131935, MGC138897.
Description	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
Uniprot Accession Number	P04141
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Ala-Arg-Ser.
Source	Pichia Pastoris.
Physical Appearance and Stability	Sterile Filtered White lyophilized (freeze-dried) powder. 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-
Formulation and Purity	The protein was lyophilized from a concentrated (1mg/ml) solution containing 10mM phosphate buffer pH 7.0, 40 mg mannitol and 10 mg sucrose. Greater than 97.0% as determined by 1. Analysis by RP-HPLC. 2. Analysis by SDS-PAGE.
Application	
Solubility	It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 18MΩ-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	The ED ₅₀ 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.
Shipping Format and Condition	Lyophilized powder at room temperature.

Optimal dilutions should be determined by each laboratory for each application. The listed dilutions are for recommendation only and the final conditions should be optimized by the ender users! This product is sold for **Research Use Only**