

**DATASHEET**

Version 20181206

**GM-CSF, Human (P. pastoris-expressed)****Cat. No.:** Z02190-50**Size:** 50.0 ug**Synonyms:** rHu GM-CSF, Sargramostim, Recombinant Human GM-CSF, Sargramostim;**Description:**

Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors. It is produced by a number of different cell types (including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts) in response to cytokine of immune and inflammatory stimuli. Besides granulocyte-macrophage progenitors, GM-CSF is also a growth factor for erythroid, megakaryocyte and eosinophil progenitors. On mature hematopoietic, monocytes/ macrophages and eosinophils. GM-CSF has also been reported to have a functional role on non-hematopoietic cells. It can induce human endothelial cells to migrate and proliferate. Additionally, GM-CSF can also stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines. GenScript Human Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) (Sargramostim), is a single, glycosylated polypeptide chain containing 127 amino acids and having a molecular mass of about 26,000-32,000 Da, as shown in SDS-PAGE. It differs from 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.

**Source:** *P. pastoris***Species:** Human**Molecular Weight:** 26,000-32,000 Da**Formulation:** The protein was lyophilized after extensive dialysis against 10mM Tris-HCl, pH8.5, 4% Mannitol, 1% Sucrose buffer.**Reconstitution:** It is recommended to reconstitute the lyophilized Sargramostim in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.**Purity:** The purity level of GenScript Recombinant Human GM-CSF is greater than 95.0%, as determined by the following methods:

- (a) RP-HPLC analysis
- (b) Reducing and non-reducing SDS-PAGE silver-stained gel analysis

**Endotoxin Level:** Less than 0.1 ng/µg (1 EU/µg) of sargramostim**Storage:** Although lyophilized GenScript Sargramostim can remain stable at room temperature for three weeks, it is best stored desiccated below -18°C. Upon reconstitution Sargramostim 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 avoid freeze-thaw cycles.