

## GM-CSF (Sargramostim), Human (P. pastoris-expressed)

**Cat. No.:** Z02693-50

**Size:** 50.0 ug

**Synonyms:** Granulocyte Macrophage Colony Stimulating Factor, CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, Molgramostin, Sargramostim, MGC131935, MGC138897

### Description:

Human Granulocyte Macrophage Colony Stimulating Factor (hGM-CSF), a hematopoietic growth factor, is mainly involved in granulopoiesis and monocytopoiesis. It is produced by T-cells and macrophages in response to antigens, and by endothelial cells and fibroblasts following induction of various cytokines<sup>[1]</sup>. A monomeric protein of 127 amino acids with six glycosylation sites and two intra disulfide bonds<sup>[2,3]</sup>, glycosylated and non-glycosylated hGM-CSFs show similar biological activities<sup>[4]</sup>. Other than its connection to the growth and development of granulocytes and macrophages, it is also indispensable for the proliferation of erythroid and megakaryocytic cells<sup>[5]</sup>.

Recombinant Human Granulocyte Macrophage Colony Stimulating Factor (rhGM-CSF) produced in *P. pastoris* is a glycosylated polypeptide. A fully biologically active molecule, rhGM-CSF has a molecular mass of 26-32kDa analyzed by SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques at GenScript.

### Amino Acid Sequence:

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00001 MAPARSPSPS TQPWEHVNAI QEALRLLNLS RDAAEMNET  
00041 VEISEMFDL QEPTCLQTRL ELYKQGLRGS LTKLKGPLTM  
00081 MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF  
00121 DCWEPVQE
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**Source:** *P. pastoris*

**Species:** Human

**Biological Activity:** ED<sub>50</sub> < 0.2ng/ml, measured by proliferation assay of TF-1 cells, corresponding to a specific activity of > 5x 10<sup>6</sup> units/mg.

**Molecular Weight:** 26-32kDa, observed by SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against 10 mM PB, pH7.0.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/ml.

**Purity:** > 95 % as analyzed by SDS-PAGE.

**Endotoxin Level:** <1.0EU/µg, determined by LAL method.

**Storage:** Lyophilized recombinant human Granulocyte Macrophage Colony Stimulating Factor (rhGM-CSF) remains stable up to 12 months at lower than -70°C from date of receipt. Upon reconstitution, rhGM-CSF should be stable up to 4 weeks at 4°C or up to 6 months at -20°C.