

## Recombinant Human GM-CSF/CSF2 Protein (His Tag, Cells)

**Catalog No.** PKSH032502

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

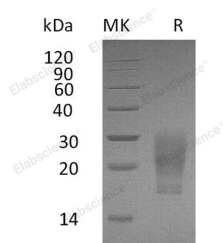
### Description

<b>Synonyms</b>	Granulocyte-Macrophage Colony-Stimulating Factor;GM-CSF;Colony-Stimulating Factor;CSF;Molgramostin;Sargramostim;CSF2;GMCSF
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Ala18-Glu144
<b>Accession</b>	P04141
<b>Calculated Molecular Weight</b>	15.5 kDa
<b>Observed molecular weight</b>	17-30 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 6-30 pg/ml.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

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 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.