

**HumanKine<sup>®</sup> GM-CSF (Recombinant Human)**



Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free
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**Product Description**

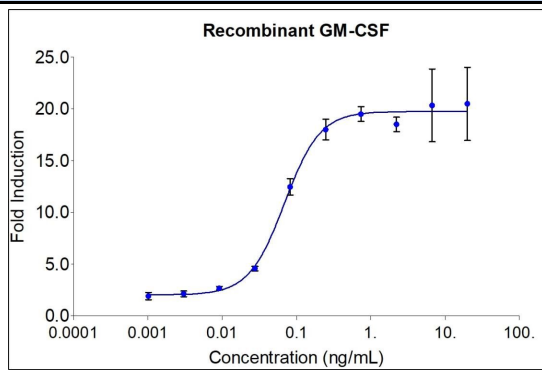
Animal-free Recombinant Human GM-CSF is produced in a human cell expression system in serum-free, chemically defined media. It has a demonstrated greater stability under cell culture conditions making it ideal for efficient generation of Human Dendritic Cells. GM-CSF is a hematopoietic growth factor that stimulates the development of early erythroid megakaryocytic and eosinophilic progenitor cells. It is produced in endothelial cells, monocytes, fibroblasts, and T lymphocytes. Recombinant Human GM-CSF is a 15 to 36 kDa globular protein consisting of 128 amino acids, containing two intramolecular disulfide bonds and two potential N-linked glycosylation sites.

Alternative Names	Colony stimulating factor, CSF, CSF2, GM CSF, GMCSF, GM-CSF, Molgramostin, Sargramostim
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived GM-CSF protein

**Specifications**

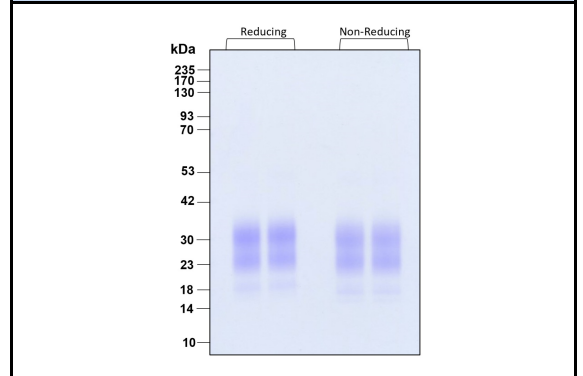
Test	Method	Specification
Activity	Dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line)	0.08-0.8 ng/mL
Molecular Mass	SDS-PAGE	15 to 36 kDa reduced and non-reduced, monomer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

**Activity Data**



The activity was determined by dose-dependent stimulation of proliferation in human TF-1 cells (human erythroleukemic indicator cell line) measured using Promega CellTiter96<sup>®</sup> Aqueous Non-Radioactive Cell Proliferation Assay.

**SDS-PAGE**



Preparation	
Shipping Temperature	ambient temperature
Formulation	1x PBS, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein to 0.2 mg/mL in sterile 1xPBS pH 7.4 containing 0.1% endotoxin-free recombinant human serum albumin (HSA). Gently swirl or tap vial to mix.

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
Avoid repeated freeze-thaw cycles.			

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