

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



|                       |                      |          |                |
|-----------------------|----------------------|----------|----------------|
| Animal Component-Free | Human cell expressed | Tag-Free | Endotoxin Free |
|-----------------------|----------------------|----------|----------------|

**Product Description**

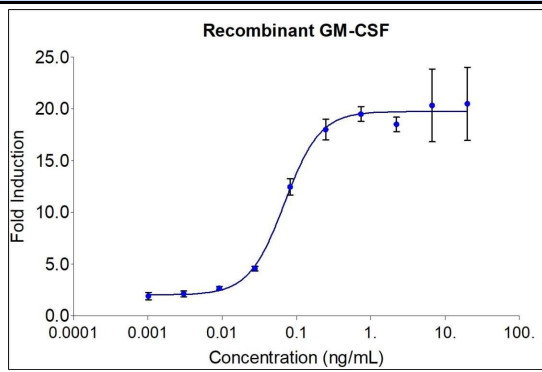
Animal-free Recombinant Human GM-CSF is produced in a human cell expression system in serum-free, chemically defined media. It has a demonstrated greater stability under cell culture conditions making it ideal for efficient generation of Human Dendritic Cells. GM-CSF is a hematopoietic growth factor 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**

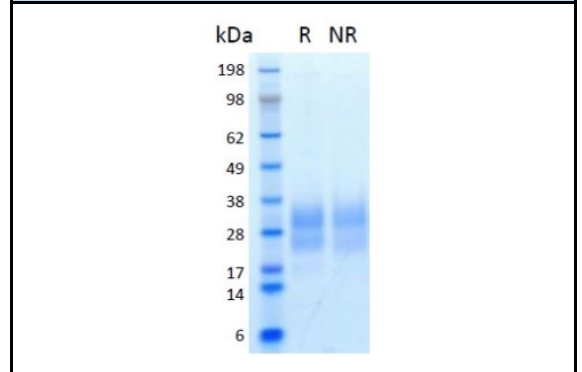
| Test           | Method  | Specification                       |
|----------------|---|-------------------------------------|
| Activity       | Dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) | 0.08-0.8 ng/mL EC50                 |
| Molecular Mass | SDS-PAGE  | 15 to 36 kDa, monomer, glycosylated |
| Purity         | SDS-PAGE  | >95%                                |
| Endotoxin      | LAL   | <1 EU/μg                            |

**Activity Data**



The activity was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) using the Promega CellTiter96<sup>®</sup> Aqueous NonRadioactive 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 in sterile 1xPBS containing 0.1% endotoxin-free recombinant human serum albumin (HSA). |

| 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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