

## Product datasheet for **AR50003PU-S**

### GM-CSF Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	GM-CSF human recombinant protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDAAEMNET VEISEMFDL QEPTCLQTRL ELYKQGLRGS LTKLKGPLTM MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF DCWEPVQE
Predicted MW:	14.6 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: Phosphate -buffered saline (PBS), pH 7.4
Bioactivity:	Specific: Measured in a cell proliferation assay using TF human erythroleukemic cells. The ED50 for this effect is equal to 50 pg/ml.
Endotoxin:	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Preparation:	Liquid purified protein
Protein Description:	Recombinant human GM-CSF was expressed in E.coli and purified by conventional chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.
Storage:	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	<a href="#">NP_000749</a>
Locus ID:	1437
UniProt ID:	<a href="#">P04141</a>
Cytogenetics:	5q31.1
Synonyms:	CSF; GMCSF



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**Summary:**

The protein encoded by this gene is a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. The active form of the protein is found extracellularly as a homodimer. This gene has been localized to a cluster of related genes at chromosome region 5q31, which is known to be associated with interstitial deletions in the 5q- syndrome and acute myelogenous leukemia. Other genes in the cluster include those encoding interleukins 4, 5, and 13. This gene plays a role in promoting tissue inflammation. Elevated levels of cytokines, including the one produced by this gene, have been detected in SARS-CoV-2 infected patients that develop acute respiratory distress syndrome. Mice deficient in this gene or its receptor develop pulmonary alveolar proteinosis. [provided by RefSeq, Aug 2020]

**Protein Families:**

Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein

**Protein Pathways:**

Cytokine-cytokine receptor interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway

**Product images:**