

## Product datasheet for DA3544

### GM-CSF Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	GM-CSF human protein, 10 µg
Species:	Human
Expression Host:	E. coli
Predicted MW:	14.5 kDa
Purity:	>98% > 98% by SDS-PAGE and HPLC analyses
Buffer:	Presentation State: Purified State: Lyophilized without stabilizer or preservative
Bioactivity:	Biological: Human GM-CSF is fully biologically active when compared to standard. The ED50 as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is < / = 0.1 ng/ml. For most in vitro applications, human GM-CSF exerts its biological activity in the concentration range of 0.05 - 0.5 ng/ml. Specific: 1x10e7 units/mg
Endotoxin:	< 0.1 ng per µg of GM-CSF
Reconstitution Method:	The lyophilized GM-CSF is soluble in water and most aqueous buffers. The lyophilized powder can be reconstituted in water to a concentration of 0.1 mg/ml. This solution can be diluted into other buffered solutions or stored at -20°C for future use.
Preparation:	Lyophilized without stabilizer or preservative
Protein Description:	Human GM-CSF is a 14,6 kDa protein consisting of 123 amino acid residues
Storage:	The lyophilized protein is stable for one year from despatch at -20°C. Reconstituted GM-CSF can be stored for three months in working aliquots at -20°C. Avoid repeated freezing and thawing.
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