

## Product datasheet for **TP720031**

### GM CSF (CSF2) (NM\_000758) Human Recombinant Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant protein of human colony stimulating factor 2 (granulocyte-macrophage) (CSF2)
<b>Species:</b>	Human
<b>Expression Host:</b>	Pichia
<b>Expression cDNA Clone or AA Sequence:</b>	Ala18-Glu144
<b>Tag:</b>	Tag Free
<b>Predicted MW:</b>	14.5 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>95% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Lyophilized from a 0.2 um filtered solution of 10mM TrisHCl, 4% Mannitol, 1% Sucrose, pH 8.5.
<b>Bioactivity:</b>	ED50 is less than 0.2 ng/ml as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells. Specific Activity of 5.0 x 10 <sup>6</sup> IU/ mg.
<b>Endotoxin:</b>	< 0.1 EU per µg protein as determined by LAL test
<b>Reconstitution Method:</b>	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH <sub>2</sub> O. It is not recommended to reconstitute a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
<b>Storage:</b>	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Stability:</b>	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
<b>RefSeq:</b>	<a href="#">NP_000749</a>
<b>Locus ID:</b>	1437
<b>UniProt ID:</b>	<a href="#">P04141</a>
<b>Cytogenetics:</b>	5q31.1
<b>Synonyms:</b>	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:**