

## Product datasheet for **TP750271**

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

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Lyophilized purified recombinant protein of Human colony stimulating factor 2 (granulocyte-macrophage) (CSF2), Ala18-Glu144, tag free, 100ug
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	1 MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDAAEMNET VEVISEMFDL QEPTCLQTRL 61 ELYKQGLRGS LTKLKGPLTM MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF 121 DCWEPVQE
<b>Tag:</b>	Tag Free
<b>Predicted MW:</b>	14.6 kDa
<b>Purity:</b>	> 90% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4
<b>Bioactivity:</b>	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 0.10-0.30ng/mL.
<b>Endotoxin:</b>	< 0.1 EU per 1 µg of the protein by the LAL
<b>Reconstitution Method:</b>	It is not recommended to reconstitute to a concentration less than 200 µg/mL in ddH2O.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Stability:</b>	Stored at -20 to -70°C for 1 year and avoid repeated freeze-thaw cycles after receipt; After reconstitution, the protein can be stored longer at -20 to -70°C, with aliquoting for single use recommended to prevent repeated freeze-thaw.
<b>RefSeq:</b>	<a href="#">NP_000749</a>
<b>Locus ID:</b>	1437
<b>UniProt ID:</b>	<a href="#">P04141</a>



**Cytogenetics:** 5q31.1

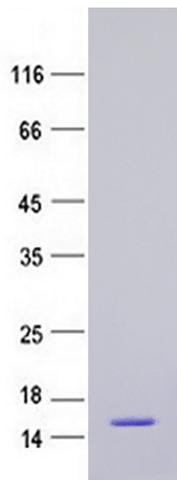
**Synonyms:** CSF; GM-CSF

**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]

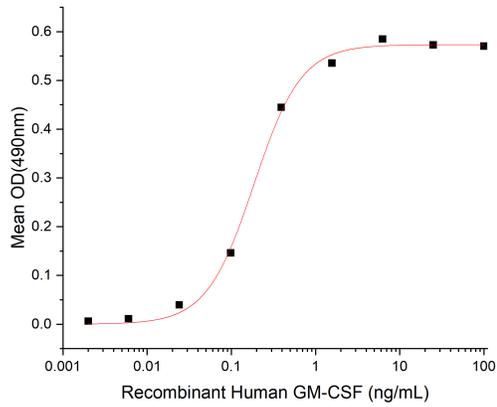
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein

**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:**



Coomassie blue staining of purified GM-CSF protein (Cat #TP750271). The protein was produced from E.coli.



Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 0.10–0.30 ng/mL.