

Datasheet for ABIN1589646  
**GM-CSF Protein**



[Go to Product page](#)

## Overview

Quantity:	2 µg
Target:	GM-CSF (CSF2)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

## Product Details

Purpose:	GM-CSF
Sequence:	APARSPSPST QPWEHVNAIQ EARRLLNLSR DTAEMNETV EVISEMFDLQ EPTCLQTRLE LYKQGLRGSL TKLKGPLTMM ASHYKQHCPP TPETSCATQI ITFESFKENL KDFLLVIPFD CWEPVQE
Specificity:	Chromosomal location:5q31.1
Characteristics:	Length (aa):127
Purity:	> 98 % by SDS-PAGE
Endotoxin Level:	< 0.1 ng per µg of GM-CSF

## Target Details

Target:	GM-CSF (CSF2)
Alternative Name:	GM-CSF ( <a href="#">CSF2 Products</a> )

## Target Details

---

**Background:** Recombinant human Granulocyte Macrophage Colony Stimulating Factor (GM-CSF), a 14,5 kDa protein consisting of 127 amino acid residues (Ala18-Glu144), is a potent species specific stimulator of bone marrow cells and several other cell types. GM-CSF was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte-macrophage progenitors. It is produced by a number of different cell types (including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts) in response to cytokine or immune and inflammatory stimuli. Besides granulocyte-macrophage progenitors, GM-CSF is also a growth factor for erythroid, megakaryocyte and eosinophil progenitors. On mature hematopoietic cells, GM-CSF is a survival factor for and activates the effector functions of granulocytes, monocytes/macrophages and eosinophils. GM-CSF has also been reported to have a functional role on non-hematopoietic cells. It can induce human endothelial cells to migrate and proliferate. Additionally, GM-CSF can also stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines. GM-CSF is species specific and human GM-CSF has no biological effects on mouse cells. GM-CSF exerts its biological effects through binding to specific cell surface receptors. The high affinity receptors required for human GM-CSF signal transduction have been shown to be heterodimers consisting of a GM-CSF-specific  $\alpha$  chain and a common  $\beta$  chain that is shared by the high-affinity receptors for IL-3 and IL-5.

Synonyms: CSF2, GM-CSF

---

**Molecular Weight:** 14.5 kDa

---

**Gene ID:** 1437

---

**NCBI Accession:** [NM\\_000758](#), [NP\\_000749](#)

---

**Pathways:** [JAK-STAT Signaling](#), [Cellular Response to Molecule of Bacterial Origin](#)

## Application Details

---

**Application Notes:** The ED50 as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is <0.1 ng/mL corresponding to a specific activity of  $\geq 1 \times 10^7$  units/mg.

---

**Comment:** Cytokines & Growth Factors

---

**Restrictions:** For Research Use only

## Handling

---

---

**Format:** Lyophilized

---

## Handling

---

Reconstitution:	The lyophilized rh GM-CSF is soluble in water and most aqueous buffers and 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.
Buffer:	PBS, pH 7.2
Storage:	RT,-20 °C
Storage Comment:	The lyophilized powder although stable at room temperature for 3 weeks, is best stored desiccated at -20°C. Reconstituted GM-CSF should be stored in working aliquots at -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).