

GM-CSF Protein, Mouse (HEK293, His)

Cat. No.:	HY-P70623
Synonyms:	Granulocyte-Macrophage Colony-Stimulating Factor; GM-CSF; Colony-Stimulating Factor; CSF; Molgramostin; Sargramostim; CSF2; GMCSF
Species:	Mouse
Source:	HEK293
Accession:	P01587 (A18-K141)
Gene ID:	12981
Molecular Weight:	18-30 kDa

PROPERTIES

AA Sequence	<p>A P T R S P I T V T R P W K H V E A I K E A L N L L D D M P V T L N E E V E V V</p> <p>S N E F S F K K L T C V Q T R L K I F E Q G L R G N F T K L K G A L N M T A S Y</p> <p>Y Q T Y C P P T P E T D C E T Q V T T Y A D F I D S L K T F L T D I P F E C K K</p> <p>P G Q K</p>
Biological Activity	<ol style="list-style-type: none"> The cell proliferation assay using FDC-P1 cells has an ED₅₀ value of 40-170 pg/mL. Measured in a cell proliferation assay using THP-1 human erythroleukemic cells. The ED₅₀ for this effect is 24.54 pg/mL, corresponding to a specific activity is 4.075×10⁷ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) is a cytokine known for its role in stimulating the growth and differentiation of hematopoietic precursor cells across various lineages, including granulocytes, macrophages, eosinophils, and erythrocytes. Structurally, GM-CSF exists as a monomer. Its signaling mechanism involves interaction with the GM-CSF receptor complex, which forms a dodecamer consisting of two head-to-head hexamers involving two alpha, two beta, and
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two ligand subunits. Through this intricate receptor complex, GM-CSF orchestrates the regulation of hematopoiesis, contributing to the development and maturation of diverse blood cell types.

Caution: Product has not been fully validated for medical applications. For research use only.

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