Animal-Free GM-CSF Protein, Human (His)

Cat. No.:	HY-P700086AF
Synonyms:	GM-CSF; CSF-2; MGI-1GM; Pluripoietin-alpha; Molgramostin; Sargramostim
Species:	Human
Source:	E. coli
Accession:	P04141 (A18-E144)
Gene ID:	1437
Molecular Weight:	Approximately 15.4 kDa

PROPERTIES

AA Sequence	A P A R S P S P S T Q P W E H V N A I Q E A R R L L N L S R D T A A E M N E T V E V I S E M F D L Q E P T C L Q T R L E L Y K Q G L R G S L T K L K G P L T M M A S H Y K Q H C P P T P E T S C A T Q I I T F E S F K E N L K D F L L V I P F D C W E P V Q E
Biological Activity	Measure by its ability to induce TF-1 cells proliferation. The ED_{50} for this effect is <80 pg/mL. The specific activity of recombinant human GM-CSF is approximately >1 x 10^7 IU/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 μg of the protein by the LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	GMP GM-CSF Protein functions as a pivotal cytokine, fostering the growth and differentiation of hematopoietic precursor cells spanning diverse lineages, such as granulocytes, macrophages, eosinophils, and erythrocytes. In its monomeric form, GMP GM-CSF serves as a signaling molecule, orchestrating a complex receptor assembly. This receptor complex takes the shape of a dodecamer, consisting of two head-to-head hexamers, each composed of two alpha, two beta, and two ligand subunits. This structural intricacy underscores the specificity and regulatory role of GMP GM-CSF in directing cellular responses within the hematopoietic system.

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

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