G-CSF Protein, Human

Cat. No.:	HY-P70422
Synonyms:	Granulocyte Colony-Stimulating Factor; G-CSF; Pluripoietin; Filgrastim; Lenograstim; CSF3; C17orf33; GCSF
Species:	Human
Source:	E. coli
Accession:	P09919-2 (T31-P204)
Gene ID:	1440
Molecular Weight:	Approximately 16.0 kDa

PROPERTIES

AA Sequence	T P L G P A S S L P Q S F L L K C L E Q V R K I Q G D G A A L Q E K L C A T Y K L C H P E E L V L L G H S L G I P W A P L S S C P S Q A L Q L A G C L S Q L H S G L F L Y Q G L L Q A L E G I S P E L G P T L D T L Q L D V A D F A T T I W Q Q M E E L G M A P A L Q P T Q G A M P A F A S A F Q R R A G G V L V A S H L Q S F L E V S Y R V L R H L A Q P
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 10 mM HAc-NaAc, 150 mM NaCl, 0.004% Tween 80, 5% Mannitol, pH 4.0.
Endotoxin Level	<1 EU/μg, determined by 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. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer. 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	G-CSF is a glycoprotein, secreted by the cells of the immune system, fibroblasts, and endothelium and functions to stimulate granulopoiesis, the innate immunity, and the differentiation of neural progenitor cells. G-CSF conveys neuroprotection to central neurons upon increases in phosphorylation of PI3K/Akt pathway, and regulates epithelial to mesenchymal transition in cancer[1]. G-CSF acts via a specific cognate receptor (G-CSFR) that belongs to the class I cytokine receptor superfamily. G-CSF is well known as a hematopoietic cytokine that stimulates the proliferation, differentiation, and function of myeloid progenitors and mobilization of hematopoietic stem and progenitor cells[2]. G-CSF has the potential to inhibit the progression of atherosclerosis in animal models[3].

REFERENCES

[1]. Aliper AM, et al. A role for G-CSF and GM-CSF in nonmyeloid cancers. Cancer Med. 2014 Aug;3(4):737-46.

[2]. Wright CR, et al. Granulocyte Colony-Stimulating Factor and Its Potential Application for Skeletal Muscle Repair and Regeneration. Mediators Inflamm. 2017;2017:7517350.

[3]. Liu M, et al. The Effect of Granulocyte Colony-Stimulating Factor on the Progression of Atherosclerosis in Animal Models: A Meta-Analysis. Biomed Res Int. 2017;2017:6705363.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA