

Mouse G-CSF protein

Cat #: PRP1308

Size: 5ug/20ug/100ug/1mg

Product Information

	Product Name: Mouse G-CSF protein		
REF	Catalog Number: PRP1308	LOT	Lot Number: Refer to product label
	Purity: > 99 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: <i>E. coli</i>
	Shipping: The product is shipped at ambient temperature.		

Background: Granulocyte-colony stimulating factor (G-CSF) is a growth factor and an essential cytokine belonging to the CSF family of hormone-like glycoproteins. It is produced by numerous cell types including immune and endothelial cells. G-CSF binding to its receptor G-CSF-R which belongs to the cytokine receptor type I family depends on the interaction of alpha-helical motifs of the former and two fibronectin type III as well as an immunoglobulin-like domain of the latter. Recent animal studies have also revealed that G-CSF activates multiple signaling pathways, such as Akt and also the Janus family kinase-2 and signal transducer and activation of transcription-3 (Jak2-STAT3) pathway, thereby promoting survival, proliferation, differentiation and mobilisation of haematopoietic stem and progenitor cells. G-CSF is a cytokine that have been demonstrated to improve cardiac function and perfusion in myocardial infarction. And it was initially evaluated as a stem cell mobilizer and erythropoietin as a cytoprotective agent. G-CSF prevents left ventricular remodeling after myocardial infarction by decreasing cardiomyocyte death and by increasing the number of blood vessels, suggesting the importance of direct actions of G-CSF on the myocardium rather than through mobilization and differentiation of stem cells. Accordingly, recombinant human (rh)G-CSF has been extensively used in clinical haematology and oncology to enable bone marrow transplantation or to treat chemotherapy-associated neutropenia. In preclinical study, G-CSF improved cardiac function and perfusion by angiomyogenesis and protection of cardiomyocytes in myocardial infarction.

Sequence: Amino acid sequence derived from Mouse G-CSF protein (P 09920) (V 31-A 208) was expressed.

Protein length: The Recombinant Mouse G-CSF protein consists of 178 amino acids and predicts a molecular mass of 18.95 KDa

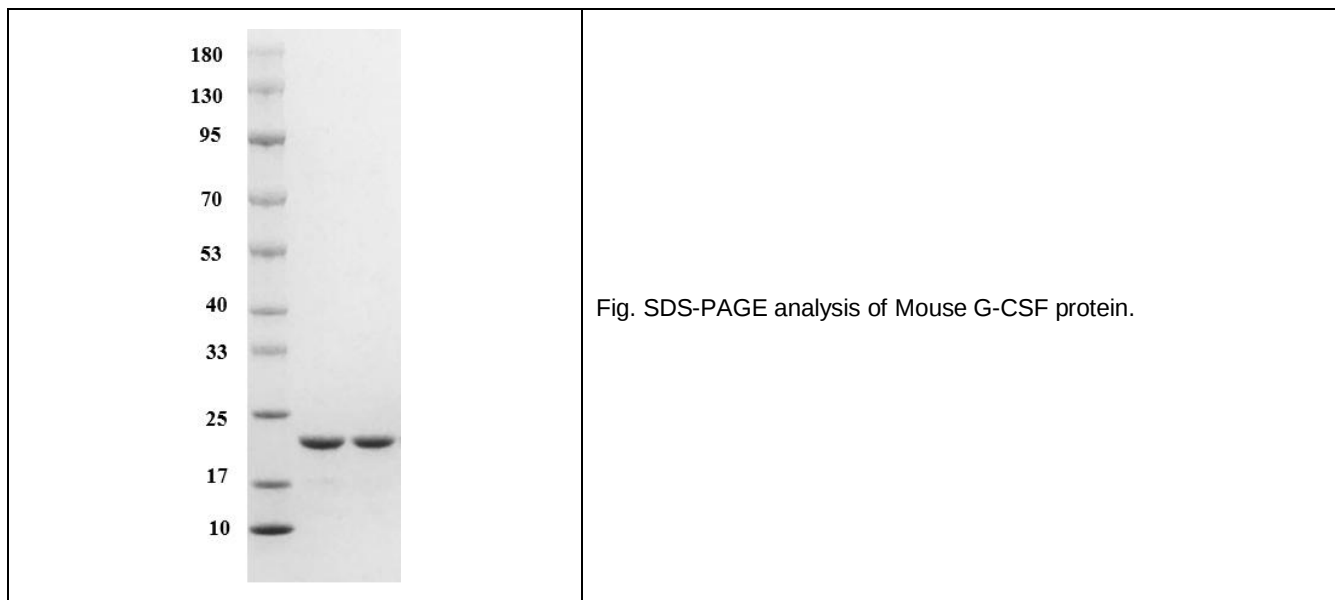
Biological Activity: Testing in progress.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile 20 mM Tris with 150 mM NaCl, pH 7.4.

Storage Instructions: Lyophilized Mouse G-CSF protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Mouse G-CSF protein using the buffer we provided not less than 100µg/ml, which can then be further diluted to other aqueous solutions.



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