

rHu G-CSF

rec. human Granulocyte-Colony Stimulating Factor

Product	Cat#	Package size
rec. human Granulocyte-Colony Stimulating Factor	C6038.0002	2µg
rec. human Granulocyte-Colony Stimulating Factor	C6038.0010	10µg

Synonyms: CSF-3, MGI-1G, GM-CSF beta, Pluripoietin, Lenograstim, G-CSF, MGC45931, GCSF.

Product description

G-CSF is a cytokine that controls the production, differentiation, and function of granulocytes. The active protein is found extracellularly. Three transcript variants encoding three different isoforms have been found for the G-CSF gene. Granulocyte/macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. This csf induces granulocytes

Recombinant human Granulocyte Colony Stimulating Factor produced in *E.coli* is a single, non-glycosylated, polypeptide of 175 amino acids and a molecular mass of 18.8 kDa.

Source: *Escherichia coli*

Biological activity

The ED50, calculated by the dose-dependent proliferation of murine NFS-60 indicator cells (measured by 3H-thymidine uptake) is <0.1ng/mL, corresponding to a specific activity of 100,000,000 IU/mg.

Purity: Greater than 98% by SDS-PAGE and HPLC analysis.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Thr-Pro-Leu-Gly.

Formulation: Lyophilized after dialysis against 10mM sodium acetate, pH4.0.

Solubility / Reconstitution

It is recommended to briefly centrifuge the vial prior to opening to bring the contents to the bottom. Reconstitute the lyophilised rHu G-CSF in sterile 20mM AcOH not less than 100µg/mL, which can then be further diluted to other aqueous solutions.

Stability

Lyophilised rHu G-CSF although stable at room temperature for 3 weeks, should be stored desiccated at -20°C. Reconstituted rHu G-CSF is best stored refrigerated at +2°C to +8°C between 2-7 days and at -20°C for long term storage. For long term storage it is recommended to add a carrier protein (e.g., 0.1% HSA or BSA).

Please prevent from repeated freeze-thaw cycles.

Protein Content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.815 as the extinction coefficient for a 0.1% (1mg/mL) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

2. Analysis by RP-HPLC, using a standard solution of G-CSF as a Reference Standard.

Usage

This product is for **research/laboratory usage only**. It may not be used as drug, agricultural or pesticidal product, food additive or household chemical.