

Recombinant Human Granulocyte Colony Stimulating Factor (rHuG-CSF)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	102-02
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 18.7 kDa, a single non-glycosylated polypeptide chain containing 174 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	TPLGPASSLP QSFLKCLEQ VRKIQGDGAA LQEKLCAATYK LCHPEELVLL GHSLGIPWAP LSSCPSQALQ LAGCLSQLHS GLFLYQGLLQ ALEGISPELG PTLDTLQLDV ADFATTIWQQ MEELGMAPAL QPTQGAMPAF ASAFQRRAGG VLVASHLQSF LEVSYRVLRH LAQP
Purity:	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine NFS-60 cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁷ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in 10mM sodium acetate buffer, containing 5 % trehalose, pH 4.0.
Endotoxin:	Less than 1 EU/µg of rHuG-CSF as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C . Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Human Granulocyte Colony Stimulating Factor

Granulocyte colony stimulating factor (G-CSF) is a pleiotropic cytokine. It is mainly produced by monocytes and macrophages upon activation by endotoxin, TNF-α and IFN-γ. Besides, many other cell types can secrete this protein after LPS, IL-1 or TNF-α activation, which are fibroblasts, endothelial cells, astrocytes and bone marrow stromal cells. Various carcinoma cell lines and myeloblastic leukemia cells can express G-CSF constitutively. G-CSF is a cytokine that acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. In addition it may function in some adhesion or recognition events at the cell surface.