



Recombinant Human G-CSF
rHuG-CSF, ultra-low endotoxin

Catalog number: HZ-6005

Lot: CHI-121407

Specifications and Use

- Source** ● *Escherichia coli*.
- Molecular Mass** ● Approximately 18.2kDa.
- Purity** ● 100%, as determined by SDS-PAGE and HPLC method.
- Biological Activity** ● Measured in a cell proliferation assay using NFS-60 cell line. Its specific activity is $\geq 1.0 \times 10^8$ IU/mg.
- Endotoxin Level** ● Less than 0.003EU/ μ g of the rHuG-CSF as determined by LAL method.
- Formulation** ● Lyophilized from a 0.2mm filtered solution of 10mM acetic acid containing 50mg of human serum albumin per 1mg of cytokine.
- Solubility** ● It is recommended to reconstitute the lyophilized rHuG-CSF in sterile ddH₂O containing at least 0.1% human serum albumin or bovine serum albumin to prepare a stock solution of no less than 1 μ g/ml of the cytokine.
- Stability** ● Lyophilized samples are stable for greater than six months from date of receipt at -20 °C to -70 °C.
● Upon reconstitution, this cytokine can be stored under sterile conditions at 2-80 °C for up to one month without detectable loss of activity.
● DO NOT FREEZE AFTER RECONSTITUTION! Loss of activity, estimated at 60 - 75%, has been observed upon thawing.
- Usage** ● FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.

Human Granulocyte Colony Stimulating Factor

Human granulocyte colony-stimulating factor (G-CSF) is produced by recombinant DNA technology. In comparison with natural products, its bioactivity is similar in vivo & in vitro. rHuG-CSF is one of the main cytokines modulating the granulocytic hematopoiesis in bone marrow. It acts on the hematologic progenitor cells of granulocyte selectively, promoting its proliferation and differentiation. It enhances the function and counts of granulocyte in peripheral blood as well.

In vitro, G-CSF stimulates growth, differentiation and functions of cells from the neutrophil lineage. It also has blast cell growth factor activity and can synergize with IL-3 to shorten the G₀ period of early hematopoietic progenitors. Consistent with its in vitro functions, G-CSF has been found to play important roles in defense against infection, in inflammation and repair, and in the maintenance of steady state hematopoiesis.