



SHANGHAI GENOMICS

Recombinant Human G-CSF

**rHuG-CSF**

Catalog number: SG3110-06

### *Specifications and Use*

- |                            |   |
|----------------------------|---|
| <b>Source</b>              | ● <i>Escherichia coli</i> .   |
| <b>Molecular Mass</b>      | ● Approximately 18.8kDa.  |
| <b>Purity</b>              | ● $\geq 97\%$ , as determined by SDS-PAGE and HPLC method.  |
| <b>Biological Activity</b> | ● Measured in a cell proliferation assay using NFS-60 cell line. The specific activity shall be not less than $0.8 \times 10^8$ IU/mg.  |
| <b>Endotoxin Level</b>     | ● $\leq 1$ EU/ $\mu$ g, determined by the LAL method.   |
| <b>Formulation</b>         | ● Lyophilized from a 0.2 $\mu$ m filtered solution of 10mM Acetate Buffer.  |
| <b>Solubility</b>          | ● It is recommended to reconstitute the lyophilized rHuG-CSF in sterile ddH <sub>2</sub> O containing at least 0.1% human serum albumin or bovine serum albumin to prepare a stock solution of no less than 1 $\mu$ g/ml of the cytokine.   |
| <b>Stability</b>           | ● Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C.<br>● Upon reconstitution, this cytokine can be stored under sterile conditions at 2-8°C for up to one month without detectable loss of activity.<br>● DO NOT FREEZE AFTER RECONSTITUTION! Loss of activity has been observed upon thawing. |
| <b>Usage</b>               | ● 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 Go 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.