gibco
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Recombinant Human Granulocyte Colony Stimulating Factor (G–CSF)

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Catalog Number:	PHC2034	PHC2035	PHC2031	PHC2033
Quantity:	5 µg	25 µg	100 µg	1 mg

Lot Number:	See product label.
Molecular Weight:	19.0 kDa
Purity:	>95% as determined by SDS–PAGE analysis.
Biological Activity:	ED_{50} range = 0.05–0.2 ng/mL, determined by the dose dependent proliferation of mouse NFS–60 cells. Optimal concentration for individual application should be determined by a dose response assay.
Formulation:	Lyophilized, carrier free.
Sterility:	Filtered prior to lyophilization through a 0.22 micron sterile filter.
Endotoxin:	<0.1 ng/µg
Production:	Recombinant human G–CSF is produced in *E. coli* and purified via sequential chromatography.
Reconstitution Recommendation:	We recommend that the vial be briefly centrifuged prior to opening to bring the contents to the bottom. Lyophilized hG–CSF should be reconstituted in sterile deionized water to 0.1–1.0 mg/mL to regain full activity. These stock solutions should be apportioned into working aliquots and stored at ≤ –20°C. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA.
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.
Storage:	Lyophilized Hg–CSF should be stored at 2°C to 8°C, preferably desiccated. Store reconstituted hG-CSF at ≤ –20°C (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	Weinstein, Y., J.N. Ihle, S. Lavu and E.P. Reddy (1986) Truncation of the c-myb gene by a retroviral integration in an interleukin 3-dependent myeloid leukemia cell line. Proc. Nat'l. Acad. Sci. USA. 83:5010–5014. Souza, L., T.C. Boone, J. Gabrilove, J. Lai et al. (1986) Recombinant human granulocyte colony-stimulating factor: effects on normal and leukemic myeloid cells. Science 232:61–65. Tian, S., P. Lamb, H. Seidel, R. Stein, and J. Rosen (1994) Rapid activation of the STAT3 transcription factor by granulocyte colony-stimulation factor. Blood 84:1760–1764. Dong, F., and A.C. Larner (2000) Activation of Akt kinase by granulocyte colony-stimulating factor (G–CSF): evidence for the role of a tyrosine kinase activity distinct from the Janus kinases. Blood 95:1656–1652. Dong, F., J.S. Gutkind, and A.C. Larner (2001) Granulocyte colony-stimulating factor induces ERK5 activation, which is differentially regulated by protein-tyrosine kinases and protein kinase C. Regulation of cell proliferation and survival. J. Biol. Chem. 276:10811–10816.

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
REF	Catalog Number
RUO	Research Use Only
	Use by
	Manufacturer
[–]	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
LOT	Batch code
IVD	In vitro diagnostic medical device
	Temperature limitation
EC REP	European Community authorized representative
[+]	With, contains
⚠	Consult accompanying documents

Limited Use Label License: Research Use Only

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For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

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