

**TECHNICAL DATA SHEET**

# Recombinant Mouse G-CSF (Carrier-free)

Catalog Number: 21-8301

**RPx-Pro™ Recombinant Protein**  
PRODUCT INFORMATION

**CONTENTS**

Recombinant Mouse G-CSF (Carrier-free)

**DESCRIPTION**

Mouse G-CSF is a hematopoietic growth factor that drives differentiation of stem cells and lineage committed progenitor cells to neutrophils and enhances their functional activities. It is produced by a variety of cell types including macrophages, endothelial cells, fibroblasts, and bone marrow stroma. Human G-CSF is being used clinically to facilitate hematopoietic recovery after bone marrow transplantation. G-CSF alone does not appear to act directly on already mobilized cells although it is an important inducer of mobilization from bone marrow into the blood stream for HSCs.

**MOLECULAR MASS**

Recombinant Mouse G-CSF is a 19.0 kDa protein composed of 179 amino acid residues.

**AMINO ACID SEQUENCE**

MVPLVTVSAL PPSLPLPRSF LLKSLEQVRK IQASGSVLE QLCATYKLCH PEELVLLGHS LGIPKASLSG CSSQALQQTQ CLSQLHSGLC LYQGLLQALS GISPALAPTL DLLQLDVANF ATTIWQQMEN LGVAPTQPT QSAMPAFTSA FQRRAAGVLA ISYLQGFLET ARLALHHLA

**SOURCE**

E. Coli

**APPLICATIONS**

Bioassay

**PURITY**

98 %

**STORAGE**

-20°C

**PROTEIN CONTENT**

Content Verified by UV Spectroscopy and/or SDS-PAGE

**ENDOTOXIN LEVEL**

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

**AUTHENTICITY**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**CROSS REACTIVITY**

Rat

**BIOACTIVITY**

ED<sub>50</sub> is ≤0.05 ng/ml as determined by dose-dependent stimulation of the proliferation of mouse NFS-60 cells corresponding to a specific activity of ≥2 x 10<sup>7</sup> units/mg.

**RESEARCH AREAS**

AIDS/HIV; Angiogenesis/Cardiovascular; Cancer; Diabetes / Weight Regulation; Inflammation; Stem Cells & Differentiation

**RECONSTITUTION**

See Certificate of Analysis (COA) for lot specific reconstitution information.

**REFERENCES**

Metcalf D 1985 Science 229: 16–22. Thomas J, F Liu and DC Link 2002 Curr Opin Hematol 9: 183–189. Hirbe AC, O Uluçkan, EA Morgan, MC Eagleton, JL Prior, D Piwnica-Worms, K Trinkaus, A Apicelli and K Weilbaecher 2007 Blood 109: 3424–3431. Schneider A, C Krüger, T Steigleder, D Weber, C Pitzer, R Laage, J Aronowski, MH Maurer, N Gassler, W Mier, M Hasselblatt, R Kollmar, S Schwab, C Sommer, A Bach, HG Kuhn and WR Schäbitz 2005 J Clin Invest 115: 2083-2098. Pitzer C, C Krüger, C Plaas, F Kirsch, T Dittgen, R Müller, R Laage, S Kastner, S Suess, R Spoelgen, A Henriques, H Ehrenreich, WR Schäbitz, A Bach and A Schneider 2008 Brain 131: 3335–3347.

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