

TECHNICAL DATA SHEET

Recombinant Human GM-CSF (Carrier-free)

Catalog Number: 21-8339

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human GM-CSF (Carrier-free)

DESCRIPTION

Human GM-CSF, along with other colony stimulating factors, are key drivers of differentiation and proliferation of hematopoietic precursors. GM-CSF increases leukocyte and reticulocyte counts and also recruits eosinophils, macrophages and neutrophils to sites of inflammation. GM-CSF is secreted by macrophages, mast cells, T cells, NK cells, endothelial cells and fibroblasts. Because of its potent ability to mobilize white blood cells, GM-CSF is used therapeutically to stimulate white blood cell production following chemotherapy.

MOLECULAR MASS

Recombinant Human GM-CSF is a 14.6 kDa protein consisting of 128 amino acids.

AMINO ACID SEQUENCE

MAPARSPSPS TQPWEHVNAI QEARRLLNLS RDTAEMNET VEISEMFDL QEPTCLQTRL ELYKQGLRGS LTKLKGPLTM
MASHYKQHCP PTPETSCATQ IITFESFKEN LKDFLLVIPF DCWEPVQE

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

Mouse, Pig

BIOACTIVITY

ED₅₀ as determined by the dose-dependent stimulation of human TF-1 cell proliferation is ≤0.1 ng/ml, a specific activity of ≥1 x 10⁷ units/mg.

RESEARCH AREAS

Cancer; Cell Culture; Inflammation; Proliferation; Stem Cells & Differentiation; Wound Healing

RECONSTITUTION

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

REFERENCES

Donahue RE, EA Wang, DK Stone, R Kamen, GG Wong, PK Sehgal, DG Nathan and SC Clark 1989 Nature 359: 872-8752. Korzenik J, B Dieckgraefe, J Valentine, D Hausman and M Gilbert 2005 N Engl J Med 352:2193–201. Esnault S and JS Malter 2002 Arch Immunol Ther Exp (Warsz) 50: 121–130. Martinez-Moczygemba M and DP Huston 2003 J Allergy Clin Immunol 112: 653–665. Hamilton JA and GP Anderson 2005 Growth Factors 22: 225-231.

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