

TECHNICAL DATA SHEET

Recombinant Human IL-4 (Carrier-free)

Catalog Number: 21-8044

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human IL-4 (Carrier-free)

DESCRIPTION

IL-4 has diverse functions in regulating T and B cell responses. IL-4 is important in the differentiation of CD4+ cells into Th2 cells that produce IL-4, IL-5, IL-6, IL-10, and IL-1. IL-4 is produced by mast cells, T cells, basophils and bone marrow stromal cells. IL-4 also drives B cell differentiation and Ig class switching especially to IgE producing cells highlighting IL-4 involvement in allergy.

MOLECULAR MASS

Recombinant Human IL-4 is a 15.1 kDa composed of 130 amino acid residues.

AMINO ACID SEQUENCE

MHKCDITLQE IIKTLNSLTE QKTLCTELTV TDIFAASKNT TEKETFCAA TVLRQFYSHH EKDTRCLGAT AQQFHRHKQL IRFLKRLDRN LWGLAGLNSC PVKEANQSTL ENFLERLKI MREKYSKCSS

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

Human, Rat, Mouse

BIOACTIVITY

The ED₅₀ as determined by the dose-dependent stimulation of human TF-1 cells is ≤0.2 ng/ml, corresponding to a specific activity of ≥5 x 10⁶ units/mg.

RESEARCH AREAS

Apoptosis; Cancer; Cell Culture; Immune System; Inflammation; Proliferation; Stem Cells & Differentiation; Allergy; Transplantation

RECONSTITUTION

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

REFERENCES

Howard M and WE Paul 1982 Lymphokine Res 1: 1-4. Sokol CL, GM Barton, AG Far and R Medzhitov 2008 Nat Immunol 9: 310-318. Hershey GK, MF Friedrich, LA Esswein, ML Thomas and TA Chatila 1997 N Eng J Med 337: 1720-1725. Yokota T, et al. 1986 Proc Natl Acad Sci USA 83(16): 5894-5898. Sokol CL, NQ Chu, Y Shuang, N Simone, T Laufer and R Medzhitov 2009 Nat Immunol 10: 713-720.

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