

TECHNICAL DATA SHEET

Recombinant Human IL-2 (Carrier-free)

Catalog Number: 21-8029

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human IL-2 (Carrier-free)

DESCRIPTION

IL-2 is a master immunoregulatory lymphokine produced by T cells in response to both antigen or mitogen activators. Signaling through the IL-2 receptor pathway is critical for T cell expansion and serves other requisite functions for normal immune response. IL-2 signals through the IL-2 receptor complex which shares a common gamma chain receptor for all other IL-2 related cytokines IL-4, IL-7, IL-9, IL-15 and IL-21. IL-2 also activates a spectrum of immune cells including B cells, NK cells, lymphokine activated killer cells, monocytes, macrophages and oligodendrocytes. IL-2 is a master cytokine and used widely in therapeutic regimens.

MOLECULAR MASS

Recombinant Human IL-2 is a 15.5 kDa protein composed of 134 amino acid residues.

AMINO ACID SEQUENCE

MAPTSSSTKK TQLQLEHLLL DLQMILNGIN NYKNPKLTRM LTFKFYMPKK ATELKHLQCL EEELKPLEEV LNLAQSKNFH LRPRDLISNI NVIVLELKGS ETTFMCEYAD ETATIVEFLN RWITFCQSII STLT

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

Dog, Monkey, Mouse, Rat, Human, Bacteria, Leech, Cow

BIOACTIVITY

ED₅₀ as determined by the dose-dependent stimulation of Mouse CTLL-2 cells is ≤0.1 ng/ml, corresponding to a specific activity of ≥1 x 10⁷ units/mg.

RESEARCH AREAS

AIDS/HIV; Cancer; Cell Culture; Diabetes / Weight Regulation; Immune System; Inflammation ; Neurobiology; Proliferation; Stem Cells & Differentiation: Wound Healing: Allerg: Transplantation

RECONSTITUTION

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

REFERENCES

Morgan DA, FW Ruscetti and R Gallo 1976 Science 193: 1007-1008. Cantrell DA and KA Smith 1984 Science 224: 1312-1316. Smith KA 1988 Science 240 (4856): 1169-1176. Gillis S, MM Ferm and KA OuSmith 1978 J Immunol 120: 2027-2032. Thornton AM, EE Donovan, CA Piccirillo and EM Shevach 2004 J Immunol 172: 6519-6523. Waldmann TA 2006 Nat Rev Immunol 6(8): 595-601.

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