

TECHNICAL DATA SHEET

Recombinant Mouse IL-12 p70 (Carrier-free)

Catalog Number: 21-8121

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Mouse IL-12 p70 (Carrier-free)

DESCRIPTION

Interleukin-12 (IL-12) is a heterodimeric pro-inflammatory cytokine composed of IL-12A (p35) and IL-12B (p40) acting on predominantly T cells and NK cells. IL-12 is a strong inflammatory mediator produced by dendritic cells (DCs) and phagocytes upon exposure to pathogens also indicating its bridging of innate and adaptive immune responses. IL-12 appears to be important in T cell (CD4 and CD8) maturation and NK cell activity. IL-12 induces IFN-gamma and TNF-alpha from both NK cells and T cells while diminishing IL-4 mediated suppression of IFN-gamma.

MOLECULAR MASS

Recombinant Mouse IL-12 is a 75.0 kDa heterodimeric glycoprotein consisting of disulfide-linked 35 kDa (p35) and 40 kDa (p40) subunits (506 total amino acid residues).

AMINO ACID SEQUENCE

p35 Subunit: RVIPVSGPAR CLSQSRNLLK TTDDMVKTAR EKLKHYSTCA EDIDHEDITR DQTSTLTKTCL PLELHKNESCLATRETSSTT
 RGSLPPQKT SLMMTLCLGS IYEDLKMYQT EFQAINAALQ NHHHQQIILD KGMLVAIDEL MQSLNHNGET LRQKPPVGEA
 DPYRVKMKLC ILLHAFSTRV VTINRVMGYL SSA p40 Subunit: MWELEKDVYV VEVDWTPDAP GETVNLCTDT PEEDDITWTS
 DQRHGVIGSG KTLTITVKEF LDAGQYTCHK GGETLSHSHL LLHKKENGIW STEILKNFKN KTLFKCEAPN YSGRFTCSWL
 VQRNMDLKFN IKSSSSSPDS RAVTCGMASL SAEKVTLQQR DYEKYSVSCQ EDVTCPTAEE TLPIELALEA RQQNKYENYS TSFFIRDIK
 PDPPKNLQMK PLKNSQVEVS WEYPDSWSTP HSYFSLKFFV RIQRKKEKMK ETEEGCNQKG AFLVEKTSTE VQCKGGNVCV
 QAQDRYINSS CSKWACVPCR VRS

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

BIOACTIVITY

The ED₅₀ was determined by the stimulation of IFN-gamma production of mouse splenocytes co-stimulated with IL-18 is <0.1 ng/ml. This corresponds to a specific activity of >1x10⁷ units/mg.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Cancer; Immune System; Inflammation; Stem Cells & Differentiation; Allergy; Transplantation

RECONSTITUTION

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

REFERENCES

Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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