

TECHNICAL DATA SHEET

Recombinant Mouse IL-9 (Carrier-free)

Catalog Number: 21-8952

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Mouse IL-9 (Carrier-free)

DESCRIPTION

IL-9 is an immunoregulatory cytokine that is expressed by activated Th9, Th17, Treg and Th2 cells. It signals through the IL-9 receptor, where the IL-9R alpha chain and the common gamma chain (CD132) interact to form the active receptor complex. IL-9 enhances the proliferation of T lymphocytes, mast cells, erthroid precursor cells and megakaryoblastic leukemia cell lines. Although mouse IL-9 is active on human cells, human IL-9 is inactive on mouse cells.

MOLECULAR MASS

Recombinant murine IL-9 is a 14.3 kDa protein of 127 amino acid residues including 10 cysteine residues which are fully conserved between the human murine proteins.

AMINO ACID SEQUENCE

MQRCTTWTGI RDTNYLIENL KDDPPSKCSC SGNVTSCCLL SVPTDDCTTP CYREGLLQLT NATQKSRLLP VFHRVKRIVE VLKNITCPSF
SCEKPCNQTM AGNTMSFLKS LLGTFQKTEM QRQKSRP

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 as determined by the dose-dependent proliferation of human MO7e cells is ≤ 0.5 ng/ml, corresponding to a specific activity of ≥ 2 x 10⁶ units/mg.

RESEARCH AREAS

Cancer; Proliferation

RECONSTITUTION

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

REFERENCES

Veldhoen M, Uyttenhove C, van Snick J, Helmby H, Westendorf A, Buer J, Martin B, Wilhelm C and Stockinger B. 2008. Nat Immunol. 9: 1341-1346.
Goswami R and Kaplan MH. 2011. J Immunol. 186(6): 3283-3288.
Tan C, Aziz MK, Lovaas JD, Vistica BP, Shi G, Wawrousek EF and Gery I. 2010. J Immunol. 185 (11): 6795-6801.
Elyaman W, Bradshaw EM, Uyttenhove C, Dardalhon V, Awasthi A, Imitola J, Bettelli E, Oukka M, van Snick J, Renauld JC, Kuchroo VK and Khoury SJ. 2009. Proc Natl Acad Sci USA. 106(31): 12885-12890.

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.

For Research Use Only.

Not for use in diagnostic or therapeutic procedures. Not for resale. Not for distribution without written consent. Tonbo Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Tonbo Biosciences, Tonbo Biosciences Logo and all other trademarks are the property of Tonbo Biotechnologies Corporation. © 2013 Tonbo Biosciences.