

TECHNICAL DATA SHEET

Recombinant Human IL-9 (Carrier-free)

Catalog Number: 21-8959

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human 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 human IL-9 is a 14.0 kDa protein of 127 amino acid residues including 10 cysteine residues which are fully conserved between the human and murine proteins.

AMINO ACID SEQUENCE

MQGCPTLAGI LDINFLINKM QEDPASKCHC SANVTSCCLL GIPSDNCTRP CFSERLSQMT NTTMQTRYPL IFSRVKKSVE VLKNNKCPYF
SCEQPCNQTT AGNALTFLKS LLEIFQKEKM RGMGRGKI

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, Mouse

BIOACTIVITY

The ED₅₀ as determined by the dose-dependent proliferation of human M07e cells was ≤ 0.2 ng/ml, corresponding to a specific activity of ≥ 5 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 Kaplam 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.

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