

TECHNICAL DATA SHEET

Recombinant Mouse LIF (Carrier-Free)

Catalog Number: 21-9134

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Mouse LIF (Carrier-Free)

DESCRIPTION

LIF is a pleiotrophic factor produced by multiple cell types, including T cells, myelomonocytic lineages, fibroblasts, liver, heart and melanoma. LIF promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation.

MOLECULAR MASS

Recombinant Mouse LIF is a 19.9 kDa protein containing 180 amino acids residues, including three disulfide bonds.

AMINO ACID SEQUENCE

SPLPITPVNA TCAIRHPCHG NLMNQIKNQL AQLNGSANAL FISYYTAQGE PFPNNVEKLC APNMTDFPSF HGNGTEKTKL VELYRMVAYL SASLTNITRD QKVLNPTAVS LQVKLNATID VMRGLLSNVL CRLCNKYRVG HVDVPPVPDH SDKEAFQRKK LGCQLLGTYK QVISVVVQAF

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/μg of protein (<1EU/μg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Mouse

BIOACTIVITY

Tonbo's Mouse LIF is fully biologically active when compared to standards. The ED50 as determined by the M1 cell differentiation assay is ≤ 0.05 ng/ml, corresponding to a specific activity of $\geq 2 \times 10^7$ units/mg.

RESEARCH AREAS

Immune System, Lipid Metabolism, Proliferation, Stem Cells & Differentiation, Diabetes/Weight Regulation

RECONSTITUTION

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

REFERENCES

Iacovino, M. Inducible cassette exchange: a rapid and efficient system enabling conditional gene expression in embryonic stem and primary cells. 2011. Stem Cells; 29(10):1580-8. Kim, P.G. Signaling axis involving Hedgehog, Notch, and Scl promotes the embryonic endothelial-to-hematopoietic transition. 2013. Proceedings of the National Academy of Sciences of the USA; 110(2):E141-50.

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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