

TECHNICAL DATA SHEET

Recombinant Mouse Leptin (Carrier-Free)

Catalog Number: 21-9207

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

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Recombinant Mouse Leptin (Carrier-Free)

DESCRIPTION

Encoded by the *ob* (obese) gene, Leptin is an adipose-derived cytokine that suppresses appetite and increases thermogenesis. Leptin exerts its anorectic effect via signaling through a hypothalamic receptor termed OB-R. Leptin has been shown to reduce body weight, food consumption, and plasma glucose levels in various *in vivo* models.

MOLECULAR MASS

Recombinant Mouse Leptin is a 16.2 kDa protein containing 147 amino acid residues.

AMINO ACID SEQUENCE

MVPIQKVQDD TKTLIKTIVT RINDISHTQS VSAKQRTVGL DFIPGLHPIL SLSKMDQTLA VYQQVLTSLP SQNVLQIAND LENLRDLLHL LAFSKSCSLP
QTSG LQKPES LDGVLEASLY STEVVALSRL QGSLQDILQQ LDVSPEC

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

Hamster, Human, Mouse, Pig, Rat

BIOACTIVITY

Tonbo's Mouse Leptin has been shown to be biologically active in two different mouse obesity models, *ob/ob* and *NZO*. Both strains of mice were treated via intraperitoneal injection once daily at a dose of 5 μg Leptin/gm of body weight for 7 days. Significant effects on body weight, food consumption, and plasma glucose levels were observed to saline-treated controls.

RESEARCH AREAS

Inflammation, Wound Healing, Angiogenesis/Cardiovascular, Apoptosis, Diabetes/Weight Regulation

RECONSTITUTION

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

REFERENCES

French, S.S. Leptin increases maternal investment. 2009. *Proceedings of the Royal Society Biological Sciences*; 276(1675):4003-11. Lam, Q.L. Leptin signaling maintains B-cell homeostasis via induction of Bcl-2 and Cyclin D1. 2010. *Proceedings of the National Academy of Sciences of the USA*; 107(31):13812-7.

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