TECHNICAL DATA SHEET

Recombinant Human Leptin (Carrier-Free)

Catalog Number: 21-9148

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human 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 Human Leptin is a 16.0 kDa protein containing 147 amino acid residues.

AMINO ACID SEQUENCE

MVPIQKVQDD TKTLIKTIVT RINDISHTQS VSSKQKVTGL DFIPGLHPIL TLSKMDQTLA VYQQILTSMP SRNVIQISND LENLRDLLHV LAFSKSCHLP WASGLETLDS LGGVLEASGY STEVVALSRL QGSLQDMLWQ LDLSPGC

SOURCE	APPLICATIONS	PURITY	STORAGE
E. coli	Bioassay	98 %	-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

Bacteria, Chicken, Human, Monkey, Mouse, Rat

BIOACTIVITY

Tonbo's Human Leptin is biologically active in the ob/ob mouse obesity model. The ob/ob 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 compared 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

Lea, R.G. Placental leptin in normal, diabetic and fetal growth-retarded pregnancies. 2000. Molecular Human Reproduction. Tobe, K. Increased expression of the sterol regulatory element-binding protein-1 gene in insulin receptor substrate-2(-/-) mouse liver. 2001. The Journal of Biological Chemistry; 276 (42):38337-38340.