HUMANZYME

PRODUCT DATA SHEET

A XKine™ Product

Recombinant Human Leptin

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

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Purity	≥98%
Endotoxin	<1.0 EU/μg
Molecular Mass	16.0 kDa
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by an in vivo assay using the ob/ob mouse obesity model and NZO. Both strains of mice were treated via intraperitoneal injection once daily at a dose of 5μg 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.

AA Sequence

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

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 1.0-5.0 mg/ml. Do not vortex.

Storage

This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

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