Recombinant Human Leptin

Catalog No: #AP60395

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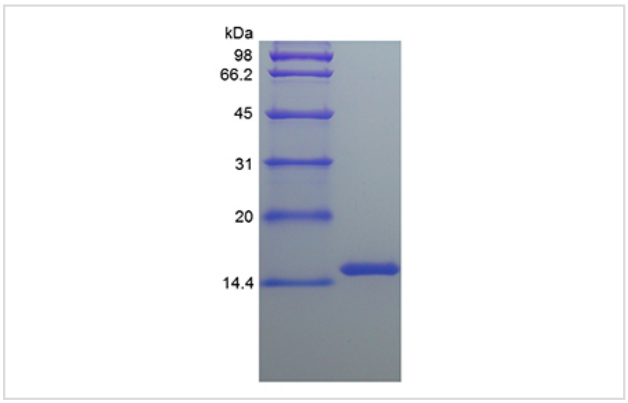
Description

Product Name	Recombinant Human Leptin
Host Species	Escherichia coli
Purification	> 97 % by SDS-PAGE and HPLC analyses.
Other Names	Obese Protein, Obesity Factor
Calculated MW	Approximately 16.0 kDa, a single non-glycosylated polypeptide chain containing 146 amino acids.
Target Sequence	VPIQKVQDDT KTLIKTIVTR INDISHTQSV SSKQKVTGLD FIPGLHPILT LSKMDQTLAV YQQILTSMPS RNVIQISNDL ENLRDLLHVL AFSKSCHLPW ASGLETLDSL GGVLEASGYS TEVVALSRLQ GSLQDMLWQL DLSPGC
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 50 mm PB, pH 3.5, with 0.02 % Tween-20.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. -□A minimum of 12 months from date of receipt, when stored at ≤-20 °C as supplied. -□1 month, 2 to 8 °C under sterile conditions after reconstitution. -□3 months, -20 to -70 °C under sterile conditions after reconstitution.

Images



Background

"Human Leptin plays a key role in regulating energy intake and energy expenditure, including appetite and metabolism. It is one of the most important adipose derived hormones. The Ob (Lep) gene (Ob for obese, Lep for leptin) is located on chromosome 7 in humans. The protein is manufactured primarily in the adipocytes of white adipose tissue, and the level of circulating leptin is directly proportional to the total amount of fat in the body. Leptin acts on receptors in the hypothalamus of the brain where it inhibits appetite by (1) counteracting the effects of neuropeptide Y (a potent feeding stimulant secreted by cells in the gut and in the hypothalamus); (2) counteracting the effects of anandamide (another potent feeding stimulant that binds to the same receptors as THC), and (3) promoting the synthesis of &#945-MSH, an appetite suppressant. This appetite inhibition is long-term, in contrast to the rapid inhibition of eating by cholecystokinin (CCK) and the slower suppression of hunger between meals mediated by PYY3-36. The absence of leptin (or its receptor) leads to uncontrolled food intake and resulting obesity."

Note: This product is for in vitro research use only and is not intended for use in humans or animals.