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## Product Data Sheet

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Product Name: Leptin Human, N82K

Cat. No.: GP20688

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	OB Protein; Obesity Protein; OBS; Obesity factor.		
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Pro-Ile-Gln.		
Solubility	It is recommended to reconstitute the lyophilized leptin N82K in sterile water or 0.4% NaHCO <sub>3</sub> adjusted to pH 8-9, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a concentrated (1mg/ml) solution with 0.0045mM NaHCO <sub>3</sub> .		

**Introduction**

Leptin takes an important part in the regulation of energy balance and body weight control. After entering the circulation, Leptin binds LEPR which results in the activation of several major signalling pathways. In the hypothalamus Leptin acts as an appetite-regulating factor that induces a decrease in food intake and an increase in energy consumption and also regulates bone mass and secretion of hypothalamo-pituitary-adrenal hormones. In the periphery, increases basal metabolism, regulates pancreatic beta-cell function and insulin secretion and affects innate and adaptive immunity.

**Biological Activity**

Biological Activity is < than 0.1% as determined by inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor.

**Stability**

Lyophilized leptin N82K although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution leptin N82K should be stored at 4°C

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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between 2-7 days and for future use below  $-18^{\circ}\text{C}$  . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

Leptin N82K Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 146 amino acids (and additional Ala at N-terminus acids) and having a molecular mass of 16kDa. The Leptin N82K is purified by proprietary chromatographic techniques.

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