
Product Data Sheet

Product Name: Leptin Rat, PEG
Cat. No.: GP20693
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.		
Solubility	It is recommended to reconstitute the lyophilized pegylated Rat Leptin in sterile 0.4% NaHCO ₃ adjusted to pH-8.5, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized from a concentrated (0.65mg/ml) solution with 0.003mM NaHCO ₃ .		

Introduction

A 16-kDa peptide hormone secreted from white adipocytes and implicated in the regulation of food intake and energy balance. Leptin provides the key afferent signal from fat cells in the feedback system that controls body fat stores.

Biological Activity

Pegylated Rat Leptin is capable of stimulating proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. Its in vitro activity is only slightly lower than the non-pegylated antagonist but in vivo it has profound weight reducing effect (as compared to the non-pegylated leptin), resulting mainly from reduced food intake.

Stability

Lyophilized Rat Leptin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Rat Leptin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

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

Product Data Sheet

Background

Mono-Pegylated Leptin Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 147 amino acids and an additional Ala at N-terminus having a molecular mass of 35.6 kDa (with 20 kDa PEG) as determined by mass spectrometry. However due to enlarged hydrodynamic volume it runs on the SDS-PAGE as 48 kDa protein and in gel-filtration on Superdex 200 as over 100 kDa protein. Its half-life in circulation after SC injection was over 20 hours. Rat Leptin was purified by proprietary chromatographic techniques according to Salomon et al (2006) Protein Expression and Purification 47, 128-136 and then pegylated.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

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