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Leptin Rat

Leptin Rat Recombinant
GRF0215

Product Overview

Name	Leptin Rat
Description	
Leptin Rat Recombinant	
Accession (Primary)	P50596
Synonyms	
OB Protein, Obesity Protein, OBS, Obesity factor.	
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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The protein was lyophilized from a concentrated (1mg/ml) solution with 0.0045mM NaHCO3.	
Stability	
Lyophilized Leptin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution 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.	
Purity	
Greater than 95.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.	
Amino acid sequence	
The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Pro-Ile-His.	
Biological Activity	
Biological activity of Leptin Rat is evidenced by inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor.	
Solubility	
It is recommended to reconstitute the lyophilized Leptin in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can	

then be further diluted to other aqueous solutions.

References

1.Title:Expression of Hypothalamic KiSS-1 System and Rescue of Defective Responses by Kisspeptin in Streptozotocin-Induced Diabetic Male Rats. Publication: doi: 10.2337/db05-1584 Diabetes September 2006 vol. 55 no. 9 2602-2610 Link: Leptin prospec publication 2.Title:Desensitization of responses to kisspeptin in the female rat: analyses of LH and FSH secretion at different developmental and metabolic states. Publication:Am J Physiol Endocrinol Metab 294: E1088–E1096, 2008.294: E1088–E1096, 2008. First published April 15, 2008; doi:10.1152/ajpendo.90240.2008. Link: Leptin Rat protein prospec publication 3.Title:p38 MAPK and LXR? mediate leptin effect on SREBP-1c expression in hepatic stellate cells (short title: Leptin effect on SREBP-1c expression) . Publication: Link: OBS Rat prospec publication 4.Title:Neuroprotection by leptin in a rat model of permanent cerebral ischemia: effects on STAT3 phosphorylation in discrete cells of the brain. Publication:Citation: Cell Death and Disease (2011) 2, e238; doi:10.1038/cddis.2011.125 Published online 8 December 2011. Link: Obesity Protein prospec publication 5.Title: The mammalian target of rapamycin as novel central regulator of puberty onset via modulation of hypothalamic Kiss1 system. Publication: Endocrinology 150.11 (2009): 5016-5026. Link Obesity Protein Rat prospec publication

Protein content

Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.201 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of Leptin rat as a Reference Standard.

Precautions

Leptin Rat is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P50596)