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## Product Data Sheet

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Product Name: Leptin Pufferfish  
Cat. No.: GP20698  
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 ALPGALDAMDVEKMKSKVTWKAQGLVARIDKHFPDRGLRFDTDKVEGSTSVVASLESYNNLISDRFGGVSQIKTEISSLAGYLNHWREGNCQEQPKV

Solubility It is recommended to reconstitute the lyophilized Pufferfish Leptin in sterile 0.4% NaHCO<sub>3</sub> pH-9 not less than 100µg/ml, which can solutions.

Formulation The Pufferfish Leptin was lyophilized from a concentrated (0.85mg/ml) solution with 0.003mM NaHCO<sub>3</sub>.

### 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

Biological active as evidenced by inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. The affinity of human leptin receptors is considerably lower compared to mammalian leptins.

### Stability

Lyophilized Pufferfish 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.

### Background

Leptin Pufferfish (Takifugu rubripes) Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 16 kDa. Bioactive Leptin Pufferfish (Takifugu rubripes) Recombinant was prepared according to the sequence published by Kurokawa et al. (2005) Peptides 26, 745-750 in two forms: monomer and covalent dimer. MS analysis revealed molecular masses of 15,291 and 30,585 Da, close to the theoretical values of 15,270 and 30,540 Da. CD spectra revealed high similarity to mammalian leptins. Other details of its preparation will be soon published by Yacobovitz et al (in press), General and Comparative Endocrinology. The Pufferfish Leptin is purified by proprietary chromatographic techniques.

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

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