

32-1561: pfLeptin Recombinant Protein

Alternative Name : OB Protein, Obesity Protein, OBS, Obesity factor.

Description

Source : Escherichia Coli. 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. 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.

Product Info

Amount :	100 µg
Purification :	Greater than 99.0% as determined by:(a) Analysis by SEC-HPLC.(b) Analysis by SDS-PAGE.
Content :	The Pufferfish Leptin was lyophilized from a concentrated (0.85mg/ml) solution with 0.003mM NaHCO ₃ .
Storage condition :	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.
Amino Acid :	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Leu-Pro-Gly-Ala.

Application Note

It is recommended to reconstitute the lyophilized Pufferfish Leptin in sterile 0.4% NaHCO₃ pH-9 not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. 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.