

32-6483: Leptin Human, N82K PEG

Application : Functional Assay

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

Description

Source: Escherichia Coli.

Sterile Filtered White lyophilized (freeze-dried) powder.

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.

Pegylated Leptin N82K Human Recombinant produced in E.Coli is a single non-glycosylated polypeptide chain containing 146 amino acids, an additional Ala at N-terminus and one molecule of PEG 20 kDa at its N-terminus acids and having a molecular weight of 35.6kDa. 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 200 kDa protein. Pegylated Leptin N82K Human Recombinant was purified by proprietary chromatographic techniques.

Product Info

Amount : 20 µg / 100 µg

Purification : Greater than 99.0% as determined by: (a) Gel filtration analysis. (b) Analysis by SDS-PAGE.

Lyophilized from a concentrated (0.65mg/ml) solution with 0.003mM NaHCO₃ Having 35-40% protein.

Content : It is recommended to reconstitute the lyophilized Pegylated Leptin N82K in sterile water or 0.4% NaHCO₃ adjusted to pH 8-9, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Storage condition : Lyophilized Pegylated Leptin N82K although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Pegylated Leptin N82K 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.

Application Note

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. This abolishment of activity results from drastically reduced affinity toward leptin receptor.