

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Leptin, His-tagged

Catalog No. Source
228-11027 Escherichia Coli

Synonyms

OB Protein, Obesity Protein, OBS, Obesity factor.

Introduction

Leptin is a protein hormone with important effects in regulating body weight, metabolism and reproductive function. The protein is approximately~16 kDa in mass and encoded by the obese (ob)gene. leptin is expressed predominantly by adipocytes, which fits with the idea that body weight is sensed as the total mass of fat in the body. Smaller amounts of leptin are also secreted by cellsin the epithelium of the stomach and in the placenta. Leptin receptors are highly expressed in areas of the hypothalamus known to be important in regulating body weight, as well as in T lymphocytes and vascular endothelial cells.

Description

Leptin Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing amino acids 48-167 and having a total molecular mass of 19 kDa including the 4 kDa His tag.

The Leptin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1mg/ml) solution with 1X PBS, 0.1% SDS and 1mM DTT.

Purity

Greater than 90.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.



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Solubility

The lyophilized Leptin is very soluble in water and most aqueous buffers below and above the isoelectric point.

Applications

- 1. Positive control for Western blot.
- 2. Antibody production.
- 3. Protein assay.

Stability

Lyophilized Leptin although stable at room temperature, should be stored desiccated below 0°C. Reconstituted Leptin is best stored refrigerated at 4°C.

Please prevent freeze-thaw cycles.