

RP00028

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Recombinant Human Leptin/LEP Protein

Catalog No.: RP00028

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	3952	P41159

Tags

No tag

Synonyms

LEP;LEPD;OB;OBS;leptin

Background

Leptin is one of the most important hormones secreted by white adipocytes, and which plays a major role in the regulation of body weight. This protein, which acts through the leptin receptor, functions as part of a signaling pathway that can inhibit food intake and/or regulate energy expenditure to maintain constancy of the adipose mass. This protein also has several endocrine functions, and is involved in the regulation of immune and inflammatory responses, hematopoiesis, angiogenesis and wound healing. Mutations in this protein and/or its regulatory regions cause severe obesity, and morbid obesity with hypogonadism. This protein has also been linked to type 2 diabetes mellitus development.

Basic Information

Description

Recombinant Human Leptin/LEP Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Val22-Cys167) of human Leptin (Accession #NP_000221.1).

Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human Leptin at 2 µg/mL (100 µL/well) can bind Recombinant Human Leptin R/CD295 with a linear range of 1.22-261.45 ng/mL.

Storage

Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Product Information

Source	Purification
<i>E. coli</i>	> 92% by SDS-PAGE.

Endotoxin

< 0.1 EU/µg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 µm filtered solution of 50mM Tris, 150mM NaCl, pH 8.0. Contact us for customized product form or formulation.

Reconstitution

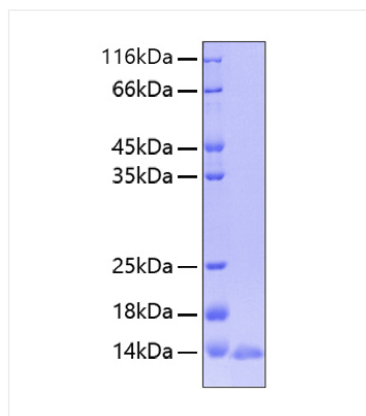
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

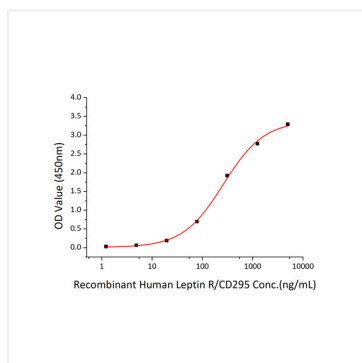


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Validation Data



Recombinant Human Leptin/LEP Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 13 kDa.



Immobilized recombinant Human Leptin at 2 μ g/mL (100 μ L/well) can bind recombinant Human Leptin R/CD295 with a linear range of 1.22-261.45 ng/mL.