



Human Leptin,LEP ELISA kit

Product Code	CSB-E04649h
Abbreviation	LEP
Protein Biological Process 1	Metabolism
Target Name	leptin
Uniprot No.	P41159
Alias	FLJ94114, OB, OBS, leptin (murine obesity homolog) leptin (obesity homolog, mouse) obese, mouse, homolog of obesity factor
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	0.156 ng/mL-10 ng/mL
Sensitivity	0.060 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Metabolism
Quality Control	A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm. An incubator can provide stable incubation conditions up to 37°C±5°C. Centrifuge Vortex Squirt bottle, manifold dispenser, or automated microplate washer Absorbent paper for blotting the microtiter plate 50-300ul multi-channel micropipette Pipette tips Single-channel micropipette with different ranges 100ml and 500ml graduated cylinders Deionized or distilled water Timer Test tubes for dilution
Gene Names	LEP
Tag Info	quantitative
Protein Description	Sandwich



Component

A micro ELISA plate --- The 96-well plate has been pre-coated with an anti-human LEP antibody. This dismountable microplate can be divided into 12 x 8 strip plates.

Two vials lyophilized standard --- Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve.

One vial Biotin-labeled LEP antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody.

One vial HRP-avidin (100 x concentrate) (120 µl/bottle) --- Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic.

One vial Biotin-antibody Diluent (15 ml/bottle) ---Dilute the Biotin-antibody solution.

One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution.

One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.

One vial Wash Buffer (25 x concentrate) (20 ml/bottle) --- Wash away unbound or free substances.

One vial TMB Substrate (10 ml/bottle) --- Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.

One vial Stop Solution (10 ml/bottle) --- Stop the color reaction. The solution color immediately turns from blue to yellow.

Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation. An instruction manual

Description

This Human LEP ELISA Kit was designed for the quantitative measurement of Human LEP protein in serum, plasma, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 0.156 ng/mL-10 ng/mL and the sensitivity is 0.060 ng/mL.

Target Details

This gene encodes a protein that is 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 gene and/or its regulatory regions cause severe obesity, and morbid obesity with hypogonadism. This gene has also been linked to type 2 diabetes mellitus development.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.



	Intra-Assay Precision			Inter-Assay Precision		
Sample	1	2	3	1	2	3
n	20	20	20	20	20	20
Mean (ng/ml)	1.213	1.234	1.196	1.189	1.248	1.204
SD	0.016	0.017	0.018	0.041	0.065	0.057
CV(%)	1.816	1.932	2.093	4.751	7.304	6.618

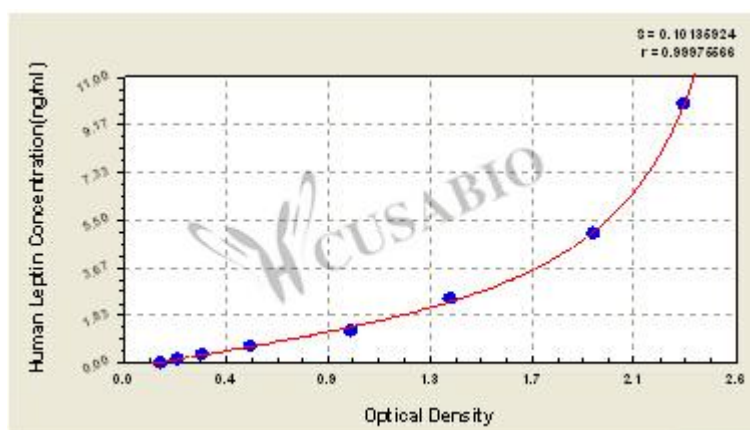
Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human Leptin in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum (n=4)
1:1	Average %	93
	Range %	80-102
1:2	Average %	88
	Range %	82-103
1:4	Average %	95
	Range %	89-115
1:8	Average %	92
	Range %	88-105

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.





ng/ml↕	OD1↕	OD2↕	Average↕	Corrected↕
0↕	0.169↕	0.161↕	0.165↕	↕
0.156↕	0.245↕	0.229↕	0.237↕	0.072↕
0.313↕	0.334↕	0.346↕	0.340↕	0.175↕
0.625↕	0.546↕	0.534↕	0.540↕	0.375↕
1.25↕	0.944↕	0.960↕	0.952↕	0.787↕
2.5↕	1.340↕	1.388↕	1.364↕	1.199↕
5↕	1.912↕	2.002↕	1.957↕	1.792↕
10↕	2.320↕	2.348↕	2.334↕	2.169↕

Msd

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