Rat Leptin,LEP ELISA kit

Product Code	CSB-E07433r
Abbreviation	LEP
Uniprot No.	P50596
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Sample Types	serum, plasma, tissue homogenates.
Detection Range	0.78 ng/ml-50 ng/ml.
Sensitivity	0.195 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
Gene Names	Lep
Tag Info	quantitative
Protein Description	Sandwich

Description

This rat Leptin (LEP) ELISA kit uses the quantitative sandwich enzyme immunoassay technique to measure the levels of mouse LEP in the samples, including serum, plasma, and tissue homogenates. Antibody specific for LEP has been pre-coated onto the microplate. Standards and samples are pipetted into the wells and any LEP present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated LEP antibody is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells, forming an antibody-antigen-enzyme-labeled antibody complex. Following a wash to remove any unbound HRP-avidin, the TMB substrate solution is added to the wells and the color develops into blue. The color changes from blue to yellow after adding the stop solution to the wells. The color intensity is proportional to the amount of LEP bound in the initial step.

LEP is a hormone mainly synthesized by adipocytes and mainly acts on the brainstem and hypothalamus to regulate the long-term balance between the body's food intake and energy consumption as well as neuroendocrine function. LEP binding to LEPR activates and regulates several downstream signaling pathways, including JAK2/STAT3/5, MAPK/ERK, and PI3K pathways, contributing to LEP's anorexigenic effects. In addition to regulating energy homeostasis, LEP also plays several roles, including regulation of immune responses, supporting cell growth and tissue repair, and modulation of glucose

	and lipid metabolism. The deficiency of LEP is linked to dysregulation of cytokine production, enhanced susceptibility to infectious diseases, autoimmune disorders, malnutrition, and inflammatory responses.
Product Precision	
Linearity	
Recovery	
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