Datasheet for ABIN1112738

Leptin Receptor ELISA Kit

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Overview

Quantity:	96 tests
Target:	Leptin Receptor (LEPR)
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 8 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Human LeptinR antibody 2. Lyophilized Human LeptinR standards: 2 tubes (100ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-human LeptinR antibody (Concentrated): 130 µl.
Material not included:	1. 37 °C incubator 2. Microplate reader (wavelength: 450nm) 3. Precise pipette and disposable pipette tips 4. Automated plate washer 5. ELISA shaker 6. 1.5ml of Eppendorf tubes 7. Plate cover 8. Absorbent filter papers 9. Plastic or glass container with volume of above 1L

Target Details

Target:	Leptin Receptor (LEPR)

Target Details

Alternative Name:	Leptin Receptor (LEPR Products)
Background:	Leptin receptor also known as LEP-R is a protein that in humans is encoded by the LEPR gene. It is a member of the gp130 family of cytokine receptors that are known to stimulate gene transcription via activation of cytosolic STAT proteins. The leptin receptor is found in many tissues in several alternatively spliced forms, raising the possibility that leptin exerts effects on many tissues including the hypothalamus. The leptin hormone regulates adipose-tissue mass through hypothalamus effects on fullness and energy use. Variations in the leptin receptor have been associated with obesity and with increased susceptibility to Entamoeba histolytica infections.
Pathways:	JAK-STAT Signaling, AMPK Signaling, Feeding Behaviour

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-LeptinR polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-LeptinR polyclonal antibody was used as detection antibodies. The standards test samples and biotin conjugated detection antibody were added - the wells subsequently and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used - visualize HRP enzymatic reaction. TMB was catalyzed by HRP - produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional - the LeptinR amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of LeptinR can be calculated.
Plate:	Pre-coated
Reagent Preparation:	1. Before the experiment, centrifuge each kit component for several minutes to bring down all reagents to the bottom of tubes. 2. It is recommend to measure each standard and sample in duplicate. 3. Do NOT let the plate completely dry at any time! Since the dry condition can inactivate the biological material on the plate. 4. Do not reuse pipette tips and tubes to avoid cross contamination. 5. Do not use the expired components and the components from different batches. 6. To avoid the marginal effect of plate incubation for temperature differences (the marginal wells always get stronger reaction), it is recommend to equilibrate the ABC working solution and TMB substrate for at least 30 min at room temperature (37°C) before adding to wells.The TMB substrate (Kit Component 8) is colorless and transparent before use, if not, please contact us for replacement.

Application Details

Sample Preparation:	Preparation of sample and reagents 1. Sample Isolate the test samples soon after collecting, then, analyze immediately (within 2 hours). Or aliquot and store at -20 °C for long term. Avoid multiple freeze-thaw cycles. Tissue lysate, body fluids and cell culture supernatants: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C . Serum: Coagulate the serum at room temperature (about 4 hours). Centrifuge at approximately 1000 × g for 15 min. Analyze the serum immediately or aliquot and store at -20 °C . Plasma: Collect plasma with heparin, citrate or EDTA as the anticoagulant. Centrifuge for 15 min at 1000 x g within 30 min of collection. Analyze immediately or aliquot and store frozen at -20 °C. Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN_3 can not be used as test sample preservative, since it is the inhibitor for HRP.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)