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Leptin ELISA Kit





Overview

Quantity:	96 tests	
Target:	Leptin (LEP)	
Reactivity:	Rat	
Method Type:	Sandwich ELISA	
Detection Range:	0.312 ng/mL - 20 ng/mL	
Minimum Detection Limit:	0.312 ng/mL	
Application:	ELISA	
Product Details		
Purpose:	The kit is a small sample sandwich enzyme immunoassay for in vitro quantitative	
	measurement in various sample types.	
Sample Type:	Cell Culture Supernatant, Cell Lysate, Plasma, Serum, Tissue Homogenate	
Analytical Method:	Quantitative	
Detection Method:	Colorimetric	
Specificity:	This assay has high sensitivity and excellent specificity for detection of Leptin.	
Sensitivity:	0.122 ng/mL	
Grade:	Small Sample	
Components:	Pre-coated, ready to use 96-well strip plate, flat buttom	
	Plate sealer for 96 wells	
	Reference Standard	

- · Standard Diluent
- · Detection Reagent A
- · Detection Reagent B
- · Assay Diluent A
- · Assay Diluent B
- Reagent Diluent (if Detection Reagent is lyophilized)

OB, OBS, Obesity Homolog, Obesity Factor, Obese Protein

- · TMB Substrate
- · Stop Solution

Leptin (LEP)

- Wash Buffer (30 x concentrate)
- · Instruction manual

Leptin (LEP Products)

Target Details

Alternative Name:

Background:

Target:

Pathways:	JAK-STAT Signaling, AMPK Signaling, Hormone Transport, Peptide Hormone Metabolism,		
	Hormone Activity, Negative Regulation of Hormone Secretion, Regulation of Carbohydrate		
	Metabolic Process, Feeding Behaviour, Monocarboxylic Acid Catabolic Process		
Application Details			
Sample Volume:	25 μL		
Assay Time:	3 h		
Plate:	Pre-coated		
Protocol:	1. Prepare all reagents, samples and standards,		
	2. Add 25µL standard or sample to each well. Incubate 1 hours at 37 °C,		
	3. Aspirate and add 25µL prepared Detection Reagent A. Incubate 1 hour at 37 °C,		
	4. Aspirate and wash 3 times,		
	5. Add 25µL prepared Detection Reagent B. Incubate 30 minutes at 37 °C,		
	6. Aspirate and wash 5 times,		
	7. Add 25µL Substrate Solution. Incubate 10-20 minutes at 37 °C,		
	8. Add 20µL Stop Solution. Read at 450nm immediately.		
Reagent Preparation:	1. Bring all kit components and samples to room temperature (18-25 °C) before use. If the kit		
	will not be used up in one time, please only take out strips and reagents for present		
	experiment, and leave the remaining strips and reagents in required condition.		
	2. Standard - Reconstitute the Standard with 0.5 mL of Standard Diluent, keep for 10 minutes at		

- room temperature, shake gently (not to foam). The concentration of the standard in the stock solution is 20ng/mL. Prepare 7 tubes containing 0.25 mL Standard Diluent and produce a double dilution series by transferring 250 μ L each. Mix each tube thoroughly before the next transfer. Set up 7 points of diluted standard such as 20ng/mL, 10ng/mL, 5ng/mL, 2.5ng/mL, 1.25ng/mL, 0.625ng/mL, 0.312ng/mL, and the last microcentrifuge tube with Standard Diluent is the blank as 0ng/mL.
- 3. Detection Reagent A and Detection Reagent B If lyophilized reconstitute the Detection Reagent A with 150µL of Reagent Diluent, keep for 10 minutes at room temperature, shake gently (not to foam). Briefly spin or centrifuge the stockDetection A and Detection B before use. Dilute them to the working concentration 100-fold with Assay Diluent A and B, respectively.
- 4. Wash Solution Dilute 10 mL of Wash Solution concentrate (30x) with 290 mL of deionized or distilled water to prepare 300 mL of Wash Solution (1x).
- 5. TMB substrate Aspirate the needed dosage of the solution with sterilized tips and do not dump the residual solution into the vial again.

Note:

- 1. Making serial dilution in the wells directly is not permitted.
- 2. Prepare standard within 15 minutes before assay. Please do not dissolve the reagents at 37 °C directly.
- 3. Please carefully reconstitute Standards or working Detection Reagent A and B according to the instruction, and avoid foaming and mix gently until the crystals are completely dissolved. To minimize imprecision caused by pipetting, use small volumes and ensure that pipettors are calibrated. It is recommended to suck more than 10µL for once pipetting.
- 4. The reconstituted Standards, Detection Reagent A and Detection Reagent B can be used only
- 5. Prepare Substrate working Solution within 15 minutes before assay.
- 6. If crystals have formed in the Wash Solution concentrate (30x), warm to room temperature and mix gently until the crystals are completely dissolved.
- 7. Contaminated water or container for reagent preparation will influence the detection result.

Sample Preparation:

- It is recommended to use fresh samples without long storage, otherwise protein degradation and denaturationmay occur in these samples, leading to false results. Samples should therefore be stored for a short periodat 2 8 °C or aliquoted at -20 °C (≤1 month) or -80 °C (≤ 3 months). Repeated freeze-thawcycles should be avoided. Prior to assay, the frozen samples should be slowly thawed and centrifuged toremove precipitates.
- If the sample type is not specified in the instructions, a preliminary test is necessary to determine compatibility with the kit.
- If a lysis buffer is used to prepare tissue homogenates or cell culture supernatant, there is a possibility of causing a deviation due to the introduced chemical substance. The recommended dilution factor is for reference only.
- Please estimate the concentration of the samples before performing the test. If the values are not in therange of the standard curve, the optimal sample dilution for the particular experiment has to be determined. Samples should then be diluted with PBS (pH =7.0-7.2).

Application Details

Assav	

Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level of

target were tested 20 times on one plate, respectively.

Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level of target were tested on 3 different plates, 8 replicates in each plate.

CV(%) = SD/meanX100

Intra-Assay: CV < 10%

Inter-Assay: CV < 12%

Restrictions:

For Research Use only

Handling

Storage:

4 °C/-20 ° C

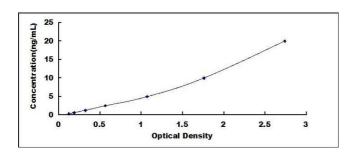
Storage Comment:

- 1. For unopened kit: All reagents should be stored according to the labels on the vials. The Standard, Detection Reagent A, Detection Reagent B, and 96-well Strip Plate should be stored at -20 °C upon receipt, while the other reagents should be stored at 4 °C.
- 2. For opened kits: the remaining reagents must be stored according to the above storage conditions. In addition, please return the unused wells to the foil pouch containing the desiccant and seal the foil pouch with the zipper.

Expiry Date:

6 months

Images



ELISA

Image 1. Typical standard curve