

Datasheet for ABIN1672740
Leptin Receptor ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	Leptin Receptor (LEPR)
Binding Specificity:	AA 22-839
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse Leptin receptor
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: L22-G839
Specificity:	Expression system for standard: NSO Immunogen sequence: L22-G839
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<5pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	Leptin Receptor (LEPR)
Alternative Name:	LEPR (LEPR Products)
Background:	<p>Protein Function: Receptor for obesity factor (leptin). On ligand binding, mediates signaling through JAK2/STAT3. Involved in the regulation of fat metabolism and, in a hematopoietic pathway, required for normal lymphopoiesis. May play a role in reproduction. Can also mediate the ERK/FOS signaling pathway.</p> <p>Background: Leptin receptor(or Obese receptor, OBR) is a single membrane-spanning receptor most related to the gp130 signal-transducing component of the IL-6 receptor, the G-CSF receptor, and the LIF receptor. OB-R mRNA is expressed not only in choroid plexus, but also in several other tissues, including hypothalamus. Leptin acts through the leptin receptor, a single-transmembrane domain receptor of the cytokine-receptor family. Leptin controls energy balance and food intake through the leptin receptor in the hypothalamus of the brain, which suggests that some polymorphisms of the leptin receptor gene(LEPR) might contribute to obesity or obesity-related diseases. Leptin is also involved in the regulation of blood pressure through the leptin receptor.</p> <p>Synonyms: Leptin receptor,LEP-R,B219,OB receptor,OB-R,CD295,Lepr,Db, Obr,</p> <p>Full Gene Name: Leptin receptor</p> <p>Cellular Localisation: Cell membrane, Single-pass type I membrane protein.</p>
Gene ID:	16847
UniProt:	P48356
Pathways:	JAK-STAT Signaling , AMPK Signaling , Feeding Behaviour

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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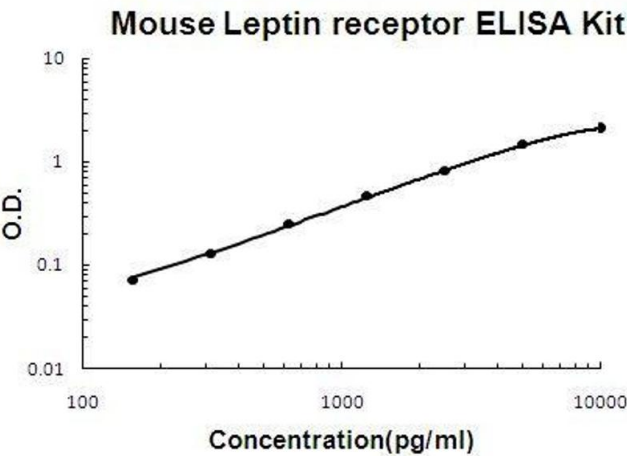
Application Details

Comment:	<p>Sequence similarities: Belongs to the type I cytokine receptor family. Type 2 subfamily.</p> <p>Tissue Specificity: Isoform A: highest level of expression in lung and kidney, also present in kidney, heart, brain, spleen, liver, muscle, choroid plexus and hypothalamus. Isoform B: highest level of expression in hypothalamus and lower level in brain, testes and adipose tissue. Isoform E: expressed in adipose tissue, hypothalamus, heart, and testes.</p>
Plate:	Pre-coated
Protocol:	<p>mouse Leptin receptor ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for Leptin receptor has been precoated onto 96-well plates. Standards(NSO, L22-G839) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Leptin receptor is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse Leptin receptor amount of sample captured in plate.</p>
Assay Procedure:	<p>Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL mouse Leptin receptor standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse Leptin receptor standard solution and each sample be measured in duplicate.</p>
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 1328, Standard deviation: 87.65, CV(%): 6.6• Sample 2: n=16, Mean(pg/ml): 3836, Standard deviation: 168.8, CV(%): 4.4• Sample 3: n=16, Mean(pg/ml): 6429, Standard deviation: 327.9, CV(%): 5.1,• Sample 1: n=24, Mean(pg/ml): 1656, Standard deviation: 125.9, CV(%): 7.6• Sample 2: n=24, Mean(pg/ml): 4025, Standard deviation: 221.4, CV(%): 5.5• Sample 3: n=24, Mean(pg/ml): 6872, Standard deviation: 474.2, CV(%): 6.9
Restrictions:	For Research Use only
Handling	
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C

Handling

Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Images



ELISA

Image 1. Mouse Leptin receptor PicoKine ELISA Kit standard curve