



## Human leptin receptor (LEPR) ELISA kit (15.625-1000 pg/mL)

<b>Cat. No.:</b>	0126WXX-845
<b>Assay Type:</b>	Quantitative sandwich ELISA
<b>Target Species:</b>	Human
<b>Assay Target:</b>	LEPR
<b>Size:</b>	48T; 96T

This product is for research use only and is not intended for diagnostic use.

### Product Overview

#### Description

Human leptin receptor (LEPR) ELISA kit (15.625-1000 pg/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of LEPR in human samples with a range of 15.625-1000 pg/mL and a minimum detectable dose (sensitivity) of 9.375 pg/mL. The kit is highly sensitive and easy to use.

#### Assay Principle

An anti-human LEPR antibody is pre-immobilized on 96-well plates. Biotin-conjugated anti-human LEPR antibodies are utilized for detection. Standards and samples are added to the wells along with the biotinylated antibody and subsequently washed. HRP-streptavidin is then introduced. After washing away unbound components, TMB substrate facilitates the enzymatic reaction, producing a blue color that shifts to yellow upon adding the stop solution. The intensity of the yellow color is proportional to the human LEPR concentration, measured at 450 nm.

#### Background

LEPR, as a peptide hormone receptor, is responsible for receiving leptin signals. When leptin binds to LEPR, it initiates a series of intracellular cascades, including the positive regulation of the JAK-STAT signaling pathway and the positive regulation of the PI3K signaling pathway. These pathways are crucial for translating leptin signals into biological responses, such as appetite suppression and metabolic regulation. The relationship between LEPR and obesity is paramount. When leptin functions as the "satiety hormone," LEPR acts as the "satiety switch" in the brain and other tissues. Without functional receptors, leptin signals cannot be received regardless of how high leptin concentrations become.



<b>Synonyms</b>	CD295; LEPR; OBR; LR
<b>Formula Weight</b>	96,042 Da
<b>Applications</b>	Human leptin receptor (LEPR) ELISA kit (15.625-1000 pg/mL) is used to quantify L EPR in serum, plasma, cell culture supernatant, cell or tissue lysate, and other liquid samples of human, providing data to support research in a wide range of areas, including signal transduction, CD & adhesion molecule, metabolic pathway, endocrinology, obesity, etc.
<b>Research Area</b>	Signal transduction; CD & Adhesion molecule; Metabolic pathway; Endocrinology; Obesity

## Specification

<b>Sample Type</b>	Serum; Plasma; Cell culture supernatant; Cell or tissue lysate; Other liquid samples
<b>Detection Range</b>	15.625-1000 pg/mL
<b>Sensitivity</b>	9.375 pg/mL
<b>Cross-reactivity</b>	No significant cross-reactivity or interference was observed.
<b>Storage</b>	Store at -20°C (microplate, standard) and 2-8°C (other reagents).