



Rat lipopolysaccharide binding protein (LBP) ELISA kit (62.5-4000 pg/mL)

Cat. No.:	0126WXX-779
Assay Type:	Quantitative sandwich ELISA
Target Species:	Rat
Assay Target:	LBP
Size:	48T; 96T

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

Product Overview

Description

Rat lipopolysaccharide binding protein (LBP) ELISA kit (62.5-4000 pg/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of LBP in rat samples with a range of 62.5-4000 pg/mL and a minimum detectable dose (sensitivity) of 37.5 pg/mL. The kit is highly sensitive and easy to use.

Assay Principle

An anti-LBP antibody is pre-coated onto 96-well plates. Biotin-conjugated anti-LBP antibodies are used for detection. Standards, samples, and detection antibodies are added sequentially and washed. HRP-streptavidin is then introduced. After washing away unbound conjugates, TMB substrate is used to visualize the reaction, turning yellow after the addition of an acidic stop solution. The resulting yellow density is proportional to the amount of LBP captured in the plate, measured at 450 nm.

Background

LBP is a secreted protein primarily present in the extracellular space. Its core function is to bind bacterial lipopolysaccharide (LPS), a glycolipid found on the outer membrane of all Gram-negative bacteria. LBP is significant in obesity research because it plays a pivotal role in the link between inflammation, gut microbiota, and metabolic health. By studying LBP's mechanisms of action and its level changes, scientists can better understand how obesity leads to systemic inflammation and insulin resistance, potentially developing therapies targeting LBP or its associated signaling pathways.



Synonyms	LPS-binding protein
Formula Weight	53,384 Da
Applications	Rat lipopolysaccharide binding protein (LBP) ELISA kit (62.5-4000 pg/mL) is used to quantify LBP in serum, plasma, cell culture supernatant, cell or tissue lysate, and other liquid samples of rat, providing data to support research in a wide range of areas, including Infection immunity, obesity, etc.
Research Area	Infection immunity; Obesity

Specification

Sample Type	Serum; Plasma; Cell culture supernatant; Cell or tissue lysate; Other liquid samples
Detection Range	62.5-4000 pg/mL
Sensitivity	37.5 pg/mL
Precision (Intra-assay)	CV<8%
Precision (Inter-assay)	CV<10%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at -20°C (microplate, standard) and 2-8°C (other reagents).