Datasheet for ABIN1889416

LBP ELISA Kit

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Overview

Quantity:	96 tests
Target:	LBP
Binding Specificity:	AA 25-481
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	1.56-100 ng/mL
Minimum Detection Limit:	1.56 ng/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse LBP
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: G25-V481
Specificity:	Expression system for standard: NSO Immunogen sequence: G25-V481
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<50pg/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:	LBP
Alternative Name:	LBP (LBP Products)
Background:	Protein Function: Binds to the lipid A moiety of bacterial lipopolysaccharides (LPS), a glycolipid present in the outer membrane of all Gram-negative bacteria, and acts as an affinity enhancer for CD14, facilitating its association with LPS. Promotes the release of cytokines in response to bacterial lipopolysaccharide (By similarity). . Background: Lipopolysaccharide binding protein is a protein that in humans is encoded by the LBP gene. This gene is mapped to 20q11.23. LBP is a soluble acute-phase protein that binds to bacterial lipopolysaccharide(or LPS) to elicit immune responses by presenting the LPS to important cell surface pattern recognition receptors called CD14 and TLR4. It is present in the cerebrospinal fluid of patients with pneumococcal meningitis. The protein encoded by this gene is involved in the acute-phase immunologic response to gram-negative bacterial infections. LBP is made in the liver during the acute phase of infections and is thought to function as a carrier for LPS and to help control LPS-dependent monocyte responses. Synonyms: Lipopolysaccharide-binding protein,LBP,Lbp, Full Gene Name: Lipopolysaccharide-binding protein Cellular Localisation: Secreted.
Gene ID:	16803
UniProt:	Q61805
Pathways:	TLR Signaling, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Positive Regulation of Immune Effector Process, Toll-Like Receptors Cascades, Monocarboxylic Acid Catabolic Process

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.

Application Details

Plate:	Pre-coated
Protocol:	mouse LBP ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for LBP has been precoated onto 96-well plates. Standards(NSO, G25-V481) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for LBP 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 LBP amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 100 ng/mL, 50 ng/mL, 25 ng/mL, 1.25 ng/mL, 6.25 ng/mL, 3.12 ng/mL, 1.56 ng/mL mouse LBP 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. We recommend that each mouse LBP standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 5.61, Standard deviation: 0.32, CV(%): 5.7 • Sample 2: n=16, Mean(ng/ml): 33.8, Standard deviation: 1.55, CV(%): 4.6 • Sample 3: n=16, Mean(ng/ml): 68.2, Standard deviation: 3.41, CV(%): 5, • Sample 1: n=24, Mean(ng/ml): 5.32, Standard deviation: 0.46, CV(%): 8.6 • Sample 2: n=24, Mean(ng/ml): 36.5, Standard deviation: 1.93, CV(%): 5.3 • Sample 3: n=24, Mean(ng/ml): 74.9, Standard deviation: 4.81, CV(%): 6.4
Restrictions:	For Research Use only

Handling

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

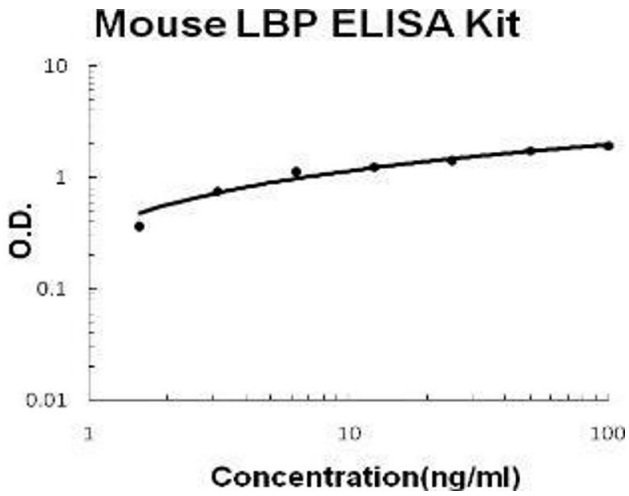
Publications

Product cited in:	Wang, Shen, Zhang, Wang, Xu, Chen, Chen, Yang, He, Wang, Su, Cheng, Zhao, Wang: "Reduction Impairs the Antibacterial Activity but Benefits the LPS Neutralization Ability of Human Enteric

Publications

Defensin 5." in: **Scientific reports**, Vol. 6, pp. 22875, (2017) (PubMed).

Images



ELISA

Image 1. Mouse LBP PicoKine ELISA Kit standard curve