

APB406Po02 100µg
Active Lipopolysaccharide Binding Protein (LBP)
Organism Species: *Sus scrofa*; *Porcine (Pig)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Asn36~Thr474

Tags: His and TrxA Taq

Purity: >90%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 6.0

Predicted Molecular Mass: 73.2kDa

Accurate Molecular Mass: 72kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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                                NKGLE YVAREGVATL
QSKLHEVTLP DFNGDFKIKY MGRGHYEFHS LDIHSCCELLG STLTPLPGQG
LYLAISDSSI RVKGGKWKVRK GILKLDGSFD VKVKGITISV NLLGSGSSG
RPTVAVSSCS SHIDDVETHM SGDLSWLLNL FHNQIESRFR RTLESKICEE
IQDLVASDLQ PYLQTVPVTT EIDNLAGIDY SLVEAPRATA QMLDVMIKGE
IFSLDHRSPV GFLAPVMRLP EEHSRMVYFA VSDYVFKTAS LVYNEAGFLN
FSITDDLVPV TSNIRLTTNS FRTFVPRLAR LYPNMNLELW GAMVSPXPLN
FGSGLSSTP QIEVEGFVLL PNSVREPVFR LGMATNVSAA LTFNTSKITG
FLKPGKIQVE LKESKVGIFN VELLEALLNY YLLNNLYPKV NDKLAEGFPL
PLLNYIQLHD PVLQIHKDFL LLGT
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[ACTIVITY]

Lipopolysaccharide Binding Protein (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. This protein is part of a family of structurally and functionally related proteins, including BPI, plasma cholesteryl ester transfer protein (CETP), and phospholipid transfer protein (PLTP). It has been reported that LBP can enhance LPS-stimulated IL-8 secretion by THP-1 cells. To test the bioactivity of recombinant pig LBP, THP-1 cells were seeded into 24-well plate at a density of 1×10^6 cells/mL including 1 ug/mL LPS, and treated with certain concentrations (0.625 ug/mL-5 ug/mL) of rpLBP for 24h and IL-8 levels in the cell supernatant were determined by ELISA. IL-8 levels in the cell supernatant of THP-1 cells increased significantly after stimulated with recombinant pig LBP have shown in Figure 1.

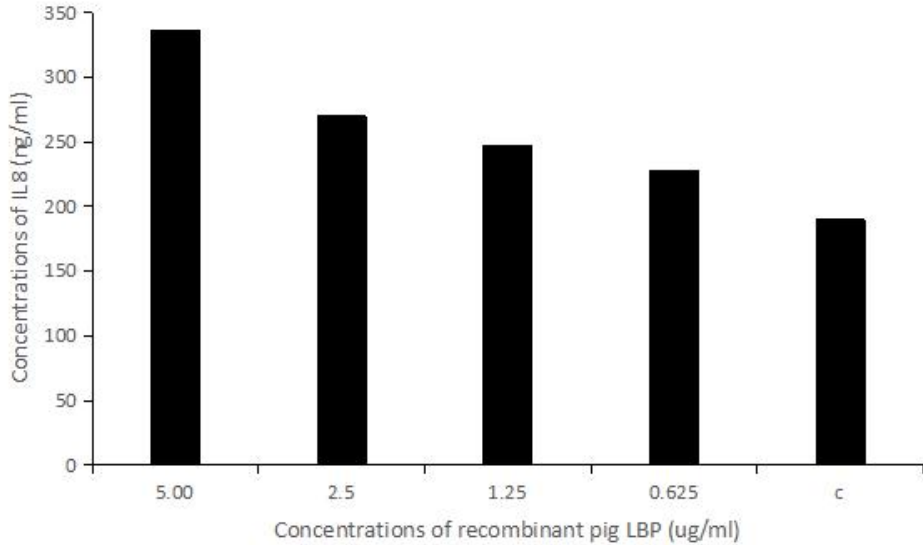


Figure1. IL-8 levels in the cell supernatant of THP-1 induced by recombinant pig LBP

[IDENTIFICATION]

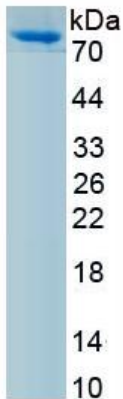


Figure 2. SDS-PAGE

Sample: Active recombinant LBP, Pig

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.