

APB693Hu61 2mg
Active Fatty Acid Binding Protein 4, Adipocyte (FABP4)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Cys2~Ala132

Tags: N-terminal His-tag

Purity: >95%

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

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

Original Concentration: 350ug/mL

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 6.8

Predicted Molecular Mass: 16.2kDa

Accurate Molecular Mass: 16kDa 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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CDAFVGTWK LVSSENFDDY MKEVGVGFAT RKVAGMAKPN MIISVNGDVI  
TIKSESTFKN TEISFILGQE FDEVTADDRK VKSTITLDGG VLVHVQKWDG  
KSTTIKRKRE DDKLVVECVM KGVSTSTRVYE RA
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[ACTIVITY]

Fatty acid binding protein-4 (FABP4) is a member of a large superfamily of lipid binding proteins that are expressed in a tissue specific manner. FABP4 is one of ten cytoplasmic FABPs that are 14-15 kDa in size and range from 126-140 amino acids (aa) in length. Although all are highly conserved in their tertiary structure, there is only modest aa identity between any two members. Lipase, Hormone Sensitive (LIPE) has been identified as an interactor of FABP4, thus a binding ELISA assay was conducted to detect the interaction of recombinant human FABP4 and recombinant human LIPE. Briefly, FABP4 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to LIPE-coated microtiter wells and incubated for 1h at 37°C. Wells were aspirated and incubated for 1h with anti-FABP4 mAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µL stop solution to the wells and read at 450 nm immediately. The binding activity of FABP4 and LIPE was shown in Figure 1, and this effect was in a dose dependent manner. The EC₅₀ for this effect is 4.23 ug/mL.

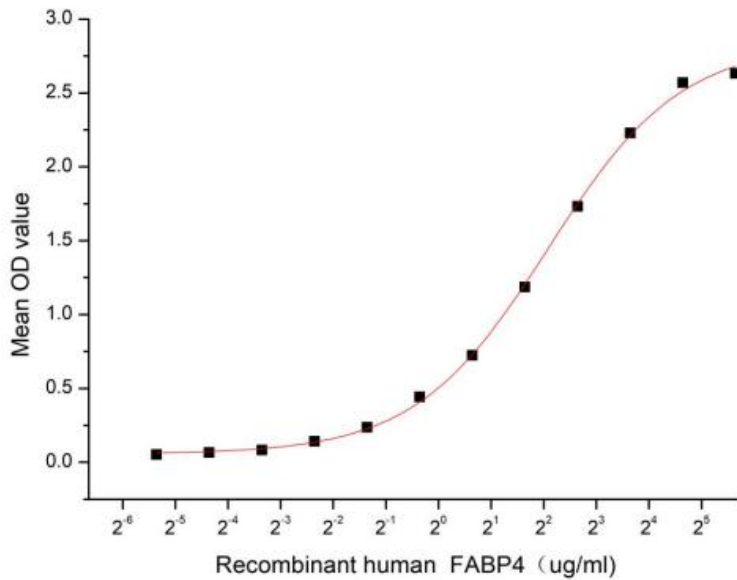


Figure 1. The binding activity of recombinant human FABP4 and human LIPE

[IDENTIFICATION]

TGTGATCTTTTGTGAGTCTGGAACTTGTCTCGGTGAAACTTTTGTGATATATGAAAGAGTAGGAGTGGGCTTTGGCCCGGAAAGTGGCTGGCATGGCCAACTAACTGATCATCATGTGTGATGGGAGTGTGTCCACATTAACTCTGAAAGTAACTTTAAAAATCTGAGATTCTTTCATCTTGGGCGG

C D A F Y G T V K L Y S S E N F D D Y N K E V G V G F A T R K V A G H A K P N M I I S V N G D V I T I K S E S T F K N T E I S F I L G Q :

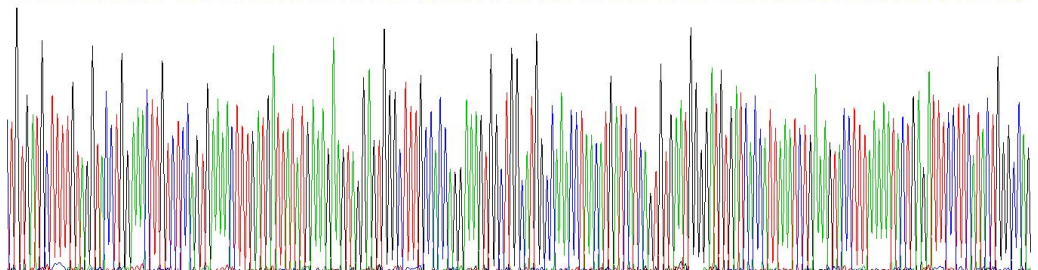


Figure 2. Gene Sequencing (extract)

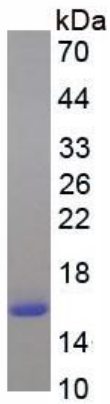


Figure 3. SDS-PAGE

Sample: Active recombinant Human, FABP4

[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.