APA559Hu61 100μg
Active Fatty Acid Binding Protein 2, Intestinal (FABP2)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Met1~Asp132
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.5
Predicted Molecular Mass: 16.8kDa
Accurate Molecular Mass: 15kDa 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 37ºC 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]

MAFDSTWKVDRSENYDKFMEKMGVNIVKRKLAAHDNLKLTITQEGNKFTVKESSAFRNIEVVFELGVTFNYNLADGTELRGT
WSLEGNKLIGKFKRTDNGNELNTVREIIGDELVQTYVYEGVEAKRIFKKD

[ACTIVITY]

Fatty Acid Binding Protein 2, Intestinal (FABP2) is a cytoplasmic protein highly expressed in enterocytes, responsible for intracellular trafficking of dietary long-chain fatty acids (FAs). It enhances FA uptake, solubilization, and transport to the endoplasmic reticulum for triglyceride synthesis and chylomicron assembly. FABP2 also modulates lipid metabolism by regulating peroxisome proliferator-activated receptor (PPAR) signaling. Genetic variants are linked to insulin resistance and cardiovascular risk due to altered FA metabolism.FABP2 can interact with APOA1 to promote the transfer of lipids to newborn high-density lipoprotein (HDL) particles, promote cholesterol efflux and HDL maturation.Thus a functional ELISA assay was conducted to detect the interaction of recombinant mouse FABP2 and recombinant human APOA1. Briefly, FABP2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to APOA1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-FABP2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant mouse FABP2 and recombinant human APOA1 was shown in Figure 1, and this effect was in a dose dependent manner.

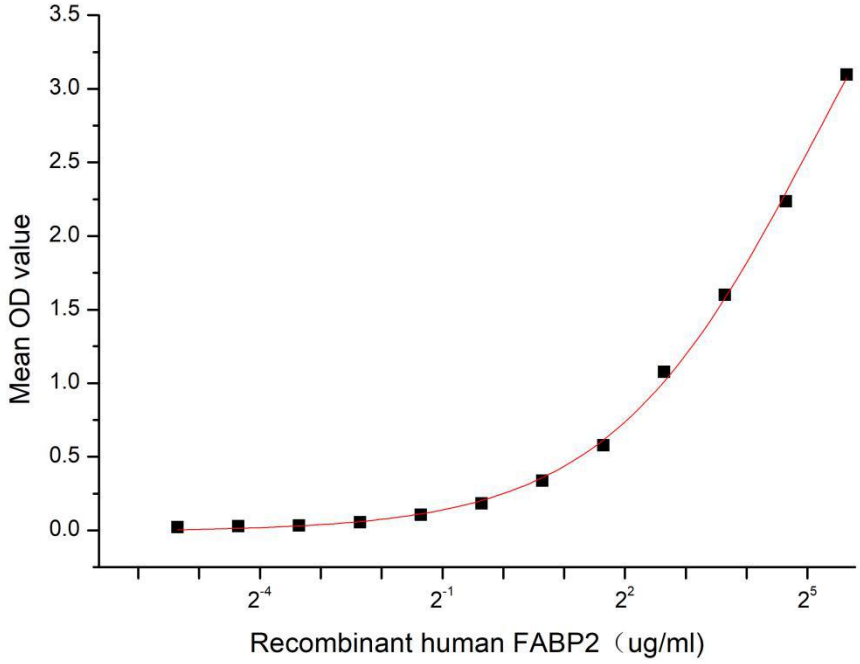

Figure 1. The binding activity of recombinant human FABP2 and recombinant human APOA1

[IDENTIFICATION]

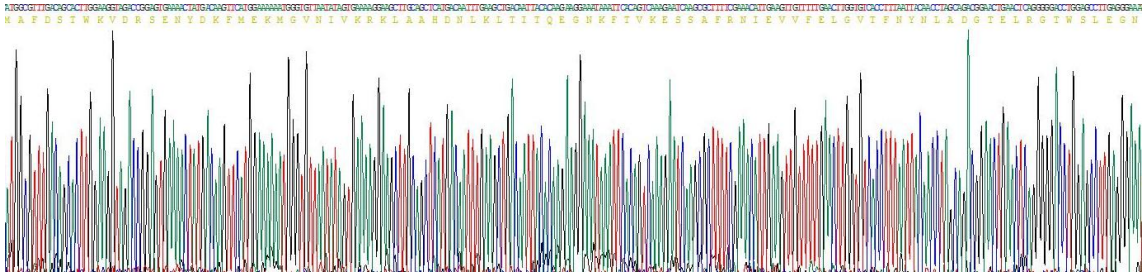

Figure 2. Gene Sequencing (extract)

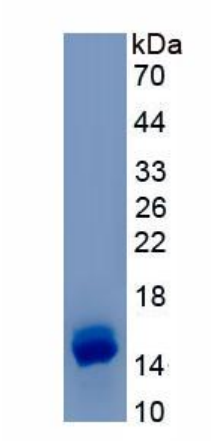

Figure 3. SDS-PAGE

Sample: Active recombinant FABP2, Human

[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.