APB985Hu01 100μg
Active Fatty Acid Binding Protein 5 (FABP5)
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: Prokaryotic expression.
Host: *E. coli*
Residues: Ala2~Glu135
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 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: 7.0
Predicted Molecular Mass: 16.3kDa
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 2-8ºC for one month.
Aliquot and store at -80ºC 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]

ATVQQLEGR WRLVDSKGFD EYMKELGVGI ALRKMGAMAK PDCIITCDGK
NLTIKTESTL KTTQFSCTLG EKFEETTADG RKTQTVCNFT DGALVQHQEW
DGKESTITRK LKDGKLVVEC VMNNVTCTRI YEKVE

[ACTIVITY]

Fatty Acid Binding Protein 5 (FABP5) , is a 15-kDa cytosolic protein abundant in epidermal keratinocytes, macrophages, and adipocytes. As a member of the FABP family, it selectively binds long-chain fatty acids and retinoids, shuttling ligands to nuclear receptors to regulate gene transcription. In the skin, FABP5 drives epidermal differentiation and inflammation by modulating lipid mediator biosynthesis . It also acts as a redox sensor, protecting against oxidative stress in psoriasis and wound healing. Furthermore, the interaction between FABP5 and S100A7 augments pro-inflammatory signaling and cancer cell migration by orchestrating lipid-mediated pathways and inflammatory cytokine production.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human FABP5 and recombinant human S100A7. Briefly,FABP5 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to S100A7-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-LOX 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 human FABP5 and recombinant human S100A7 was shown in Figure 1, the EC50 for this effect is 0.298ug/mL.

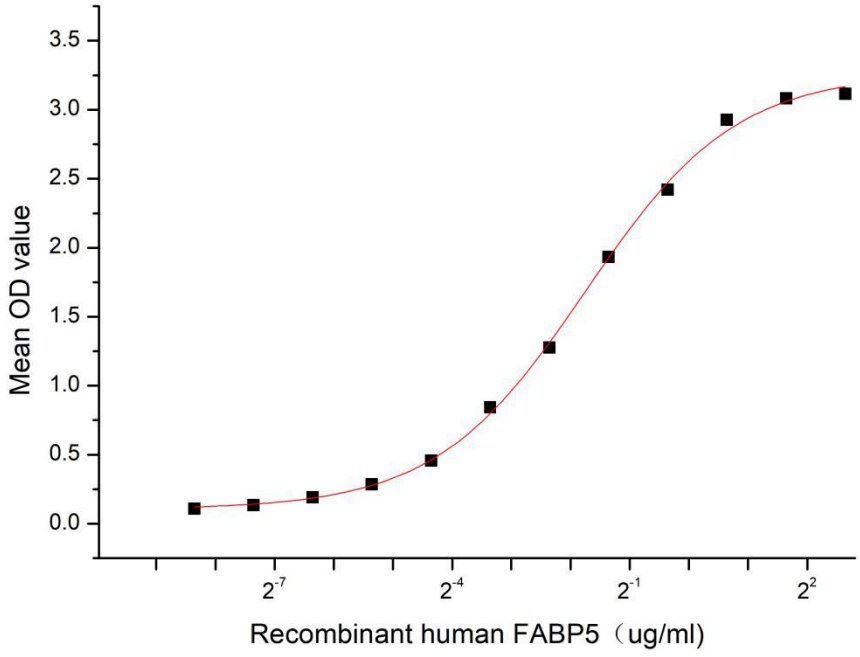

Figure 1. The binding activity of recombinant human FABP5 and recombinant human S100A7

[IDENTIFICATION]

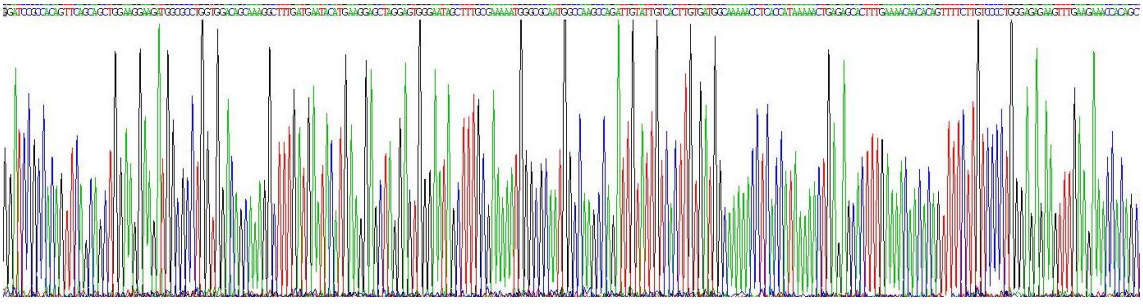

Figure 2. Gene Sequencing (extract)

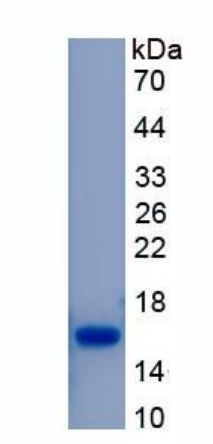

Figure 3. SDS-PAGE

Sample: Active recombinant FABP5, 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.