APA807Hu01 100μg
Active Fucosidase Alpha L1, Tissue (FUCa1)
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: Phe53~Pro289
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% 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: 6.4
Predicted Molecular Mass: 31.8kDa
Accurate Molecular Mass: 32kDa 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]

FDEAKFGV FIHWGVFSVP AWGSEWFWWH WQGEGRPQYQ RFMRDNYPPG
FSYADFGPQF TARFFHPEEW ADLFQAAGAK YVVLTTKHHE GFTNWPSPVS
WNWNSKDVGP HRDLVGELGT ALRKRNIRYG LYHSLLEWFH PLYLLDKKNG
FKTQHFVSAK TMPELYDLVN SYKPDLIWSD GEWECPDTYW NSTNFLSWLY
NDSPVKDEVV VNDRWGQNCS CHHGGYYNCE DKFKPQSLP

[ACTIVITY]

Fucosidase Alpha L1, Tissue (FUCa1) is an enzyme that catalyzes the hydrolysis of fucose residues from glycoproteins and glycolipids. It is widely present in human tissues, especially in the liver, spleen and placenta. FUCa1 plays a role in the degradation and recycling of fucose-containing glycoconjugates within the celland is involved in a variety of biochemical pathways, including cell signaling, cell adhesion, and immune response. Besides, Phosphoglucomutase 2 (PGM2) has been identified as an interactor of FUCa1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human FUCa1 and recombinant human PGM2. Briefly, FUCa1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to PGM2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-FUCa1 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 450/630 nm immediately. The binding activity of recombinant human FUCa1 and recombinant human PGM2 was shown in Figure 1, the EC50 for this effect is 0.93 ug/mL.

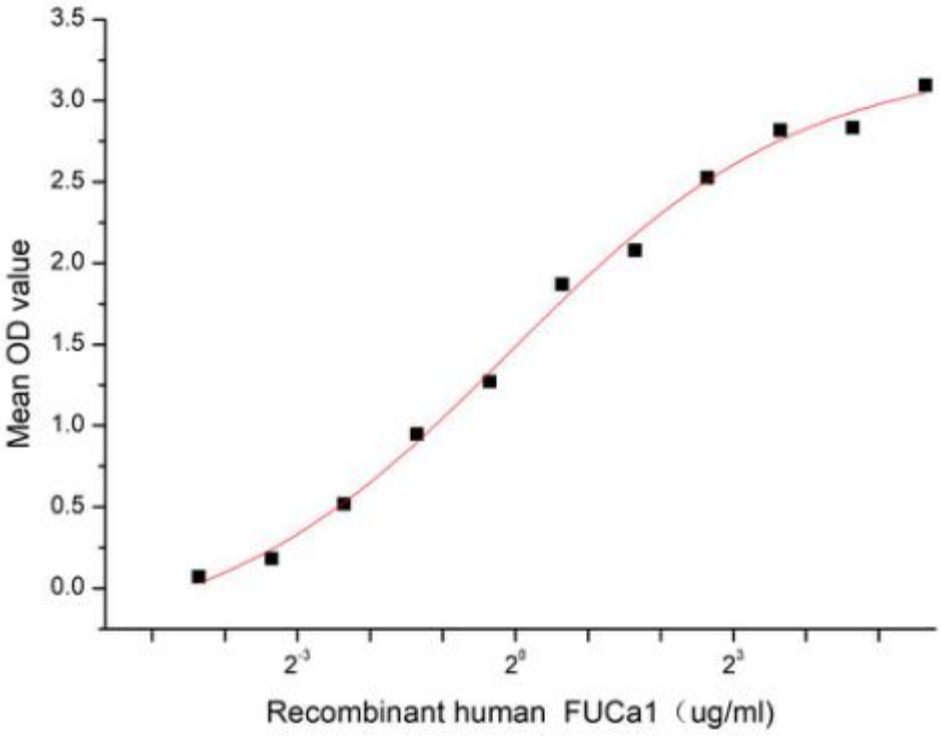

Figure 1. The binding activity of recombinant human FUCa1 and recombinant human PGM2

[IDENTIFICATION]

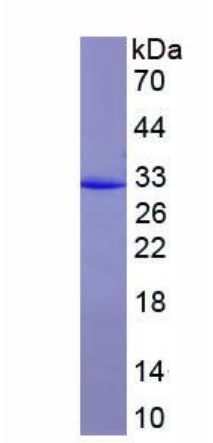

Figure 2. SDS-PAGE

Sample: Active recombinant FUCa1, 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.