

APE134Hu01 100µg
Active Defensin Alpha 6, Paneth Cell Specific (DEFa6)
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: Ala19~Cys99

Tags: N-terminal His and GST 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: Activity Assays.

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

Predicted isoelectric point: 5.9

Predicted Molecular Mass: 38.9kDa

Accurate Molecular Mass: 39kDa 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]

AE PLQAEDDPLQ AKAYEADAQE QRGANDQDFA
VSFAEDASSS LRALGSTRAF TCHCRRSCYS TEYSYGTCTV MGINHRFCC

[ACTIVITY]

Defensin Alpha 6, Paneth Cell Specific (DEFa6) is a member of the alpha defensin family, whose members are primarily involved in the host's immune response. The DEFa6 protein plays a role in the defense mechanisms of the skin and mucous membranes, especially in fighting bacterial and fungal infections. It helps defend against invasion by pathogens by forming antimicrobial peptides that destroy the cell membranes of microorganisms. Besides, Defensin Alpha 5, Paneth Cell Specific (DEFa5) has been identified as an interactor of DEFa6, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human DEFa6 and recombinant human DEFa5. Briefly, DEFa6 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to DEFa5-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-DEFa6 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, 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 μ L stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant rat DEFa6 and recombinant human DEFa5 was shown in Figure 1, the EC50 for this effect is 0.039ug/mL.

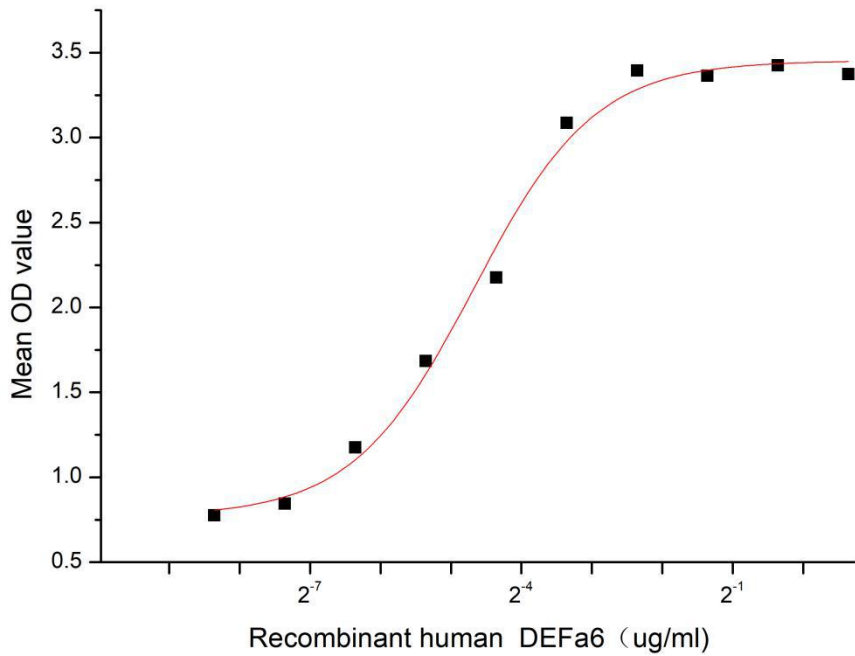


Figure 1. The binding activity of recombinant human DEFA6 and recombinant human DEFA5

[IDENTIFICATION]

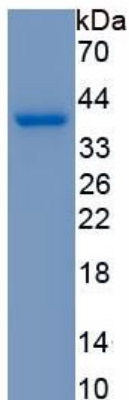


Figure 2. SDS-PAGE

Sample: Active recombinant DEFa6, 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.