APC216Hu02 100μg
Active E1A Binding Protein P300 (EP300)
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: Glu1351~Ile1601
Tags: His and TrxA Tag
Purity: >80%
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: 8.2
Predicted Molecular Mass: 49.9kDa
Accurate Molecular Mass: 48kDa 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]

ESFPYRTKAL FAFEEIDGVD LCFFGMHVQE YGSDCPPPNQ RRVYISYLDS
VHFFRPKCLR TAVYHEILIG YLEYVKKLGY TTGHIWACPP SEGDDYIFHC
HPPDQKIPKP KRLQEWYKKM LDKAVSERIV HDYKDIFKQA TEDRLTSAKE
LPYFEGDFWP NVLEESIKEL EQEEEERKRE ENTSNESTDV TKGDSKNAKK
KNNKKTSKNK SSLSRGNKKK PGMPNVSNDL SQKLYATMEK HKEVFFVIRL
I

[ACTIVITY]

E1A Binding Protein P300 (EP300) is a transcriptional co - activator. It has histone acetyltransferase activity, which can modify chromatin structure by adding acetyl groups to histones. This modification affects gene expression, as it generally relaxes chromatin, allowing transcription factors better access to DNA. EP300 interacts with numerous transcription factors and is involved in various cellular processes like cell growth, differentiation, and apoptosis. Mutations in EP300 can lead to certain genetic disorders and are associated with an increased risk of some cancers.According to the literatures, EP300 mediates cAMP-gene regulation by binding specifically to phosphorylated CREBBP.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human EP300 and recombinant human CREBBP. Briefly, EP300 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to CREBBP-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-EP300 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 EP300 and recombinant human CREBBP was shown in Figure 1, the EC50 for this effect is 0.023ug/mL.

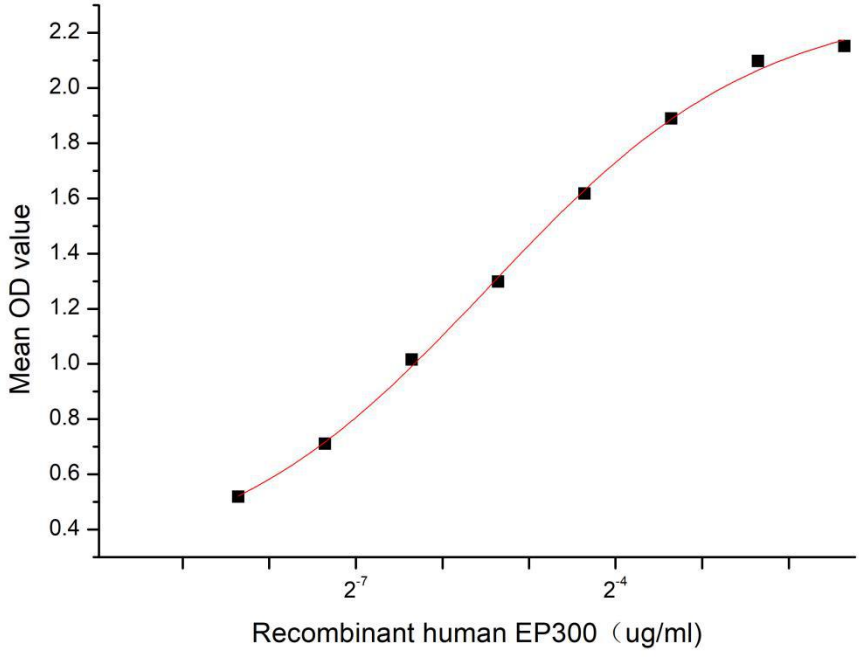

Figure 1. The binding activity of recombinant human EP300 and recombinant human CREBBP

[IDENTIFICATION]

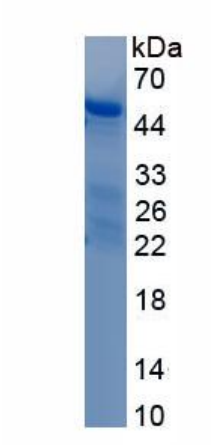

Figure 2. SDS-PAGE

Sample: Active recombinant EP300, 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.