

APA928Ra01 100µg
Active Tumor Protein p53 (P53)
Organism Species: *Rattus norvegicus* (Rat)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Pro90~Ala354

Tags: N-terminal His-tag

Purity: >98%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 9.0

Predicted Molecular Mass: 33.7kDa

Accurate Molecular Mass: 36kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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]

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                                                                 P LSSSVPSQKT
YQGNYG FHLG FLQSGTAKSV MCTYSISLNK LFCQLAKTCP VQLWVTSTPP
PGTRVRAMAI YKKSQHMTEV VRRCPHHERC SDGDGLAPPQ HLIRVEGNPY
AEYLDDRQTF RHSVVVPYEP PEVGS DYTTI HYKYMCNSSC MGGMNR RPIL
TIITLEDSSG NLLGRDSFEV RVCACPGRDR RTEENFRKK EEHCPELPPG
SAKRALPTST SSSPQQKKK LDGEYFTLKI RGRERFEMFR ELNEALELKD
ARAA
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[ACTIVITY]

Tumor protein p53 (TP53), also known as p53, cellular tumor antigen p53 has many mechanisms of anticancer function and plays a role in apoptosis, genomic stability, and inhibition of angiogenesis. TP53 act as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type. It also Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. Besides, CREB Binding Protein (CREBBP) has been identified as an interactor of TP53, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat TP53 and recombinant rat CREBBP. Briefly, TP53 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to CREBBP-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TP53 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at

37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of TP53 and CREBBP was shown in Figure 1, and this effect was in a dose dependent manner.

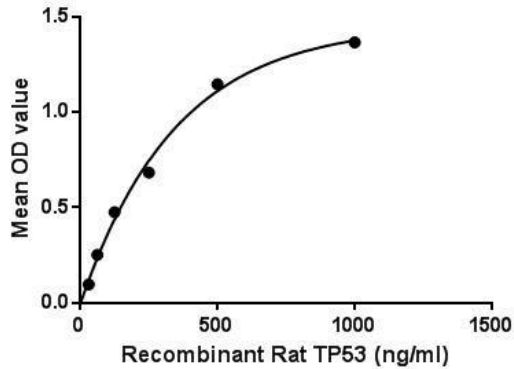


Figure 1. The binding activity of TP53 with CREBBP.

[IDENTIFICATION]

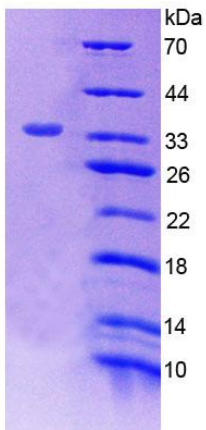


Figure 2. SDS-PAGE

Sample: Active recombinant P53, Rat

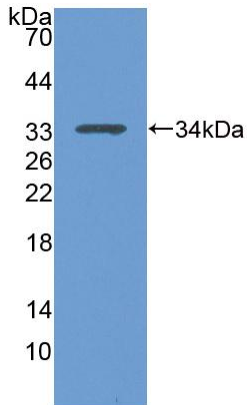


Figure 3. Western Blot

Sample: Recombinant P53, Rat;

Antibody: Rabbit Anti-Rat P53 Ab (PAA928Ra01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.