

APA124Ra01 50µg
Active Transforming Growth Factor Beta 1 (TGFβ1)
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: Ala279~Ser390

Tags: N-terminal His-tag

Purity: >95%

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: 8.4

Predicted Molecular Mass: 14.1kDa

Accurate Molecular Mass: 16kDa 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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AL DTNYCFSSTE KNCCVRQLYI  
DFRKDLGWKW IHEPKGYHAN FCLGPCPYIW SLDTQYSKVL ALYNQHNPQA  
SASPCCVQA LEPLPIVYV GRKPKVEQLS NMIVRSCKCS
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[ACTIVITY]

Transforming Growth Factor Beta 1 (TGFβ1) is a multifunctional set of peptides that controls proliferation, differentiation, and other functions in many cell types. TGFβ1 has been shown to interact with TGFβ receptor 1, Decorin, LTBP1 and so on. Besides, Latent Transforming Growth Factor Beta Binding Protein 1 (LTBP1) has been identified as an interactor of TGFβ1, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat TGFβ1 and recombinant mouse LTBP1 (high homology with rat). Briefly, TGFβ1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to LTBP1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TGFβ1 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 TGFβ1 and LTBP1 was shown in Figure 1, and this effect was in a dose dependent manner.

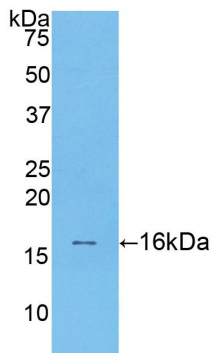


Figure 4. Western Blot

Sample: Recombinant TGFb1, Rat;

Antibody: Rabbit Anti-Rat TGFb1 Ab (PAA124Ra01)

[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.