APA218Ra01 100μg
Active Transforming Growth Factor Beta 2 (TGFb2)
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: Ala331~Ser442
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: 6.7
Predicted Molecular Mass: 13.9kDa
Accurate Molecular Mass: 12kDa 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 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]

ALDAAYCFRN VQDNCCLRPL
YIDFKRDLGW KWIHEPKGYN ANFCAGACPY LWSSDTQHTK VLSLYNTINP
EASASPCCVS QDLEPLTILY YIGNTPKIEQ LSNMIVKSCK CS

[ACTIVITY]

Transforming growth factor-beta 2 (TGF-β2) is a secreted protein known as a cytokine that performs many cellular functions and has a vital role during embryonic development (alternative names: Glioblastoma-derived T-cell suppressor factor, G-TSF, BSC-1 cell growth inhibitor, Polyergin, Cetermin). It is an extracellular glycosylated protein. It is known to suppress the effects of interleukin dependent T-cell tumors. Besides, Vitronectin (VTN) has been identified as an interactor of TGF-β2, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat TGF-β2 and recombinant rat VTN. Briefly, TGF-β2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to VTN-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-TGF-β2 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of TGF-β2 and VTN was shown in Figure 1, and this effect was in a dose dependent manner.

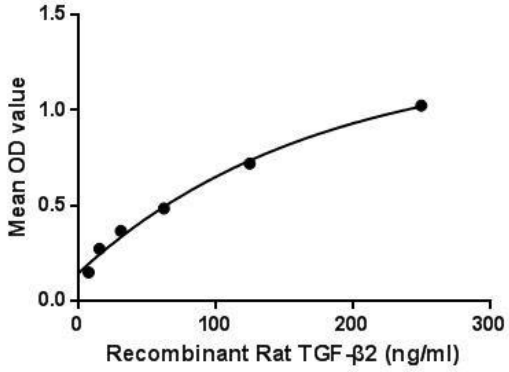

Figure 1. The binding activity of TGF-β2 with VTN.

[IDENTIFICATION]

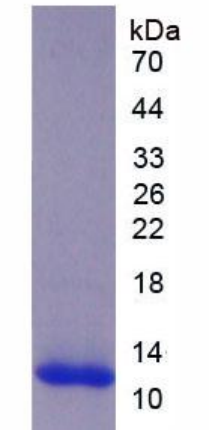

Figure 2. SDS-PAGE

Sample: Active recombinant TGFb2, Rat

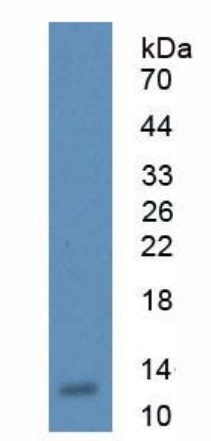

Figure 3. Western Blot

Sample: Recombinant TGFb2, Rat;

Antibody: Rabbit Anti-Rat TGFb2 Ab (PAA218Ra01)

[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.