APA124Rb01 100μg
Active Transforming Growth Factor Beta 1 (TGFb1)
Organism Species: *Oryctolagus cuniculus (Rabbit)*
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: Phe1~Glu99
Tags: N-terminal His-tag
Purity: >98%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 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: 8.9
Predicted Molecular Mass: 14.9kDa
Accurate Molecular Mass: 15kDa 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.

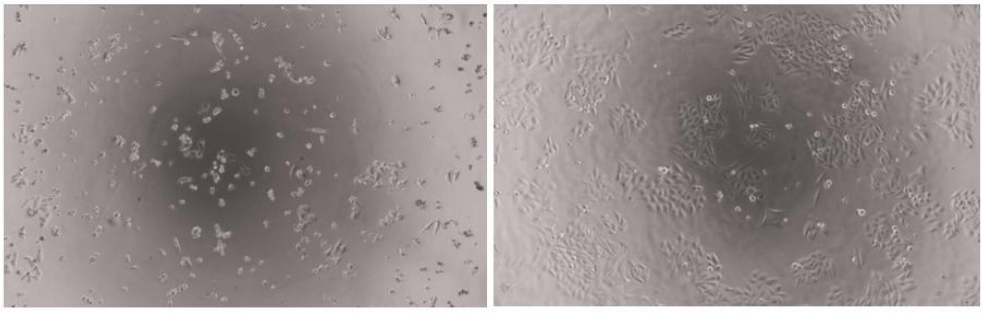
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

FSTNYCFSST EKNCCVRQLY IDFRKDLGWK WIHEPKGYHA NFCLGPCPYI
WSLDTQYSKV LALYNQHNPG ASAAPCCVPQ ALEATAHRVT TLGRKPKVE

[ACTIVITY]

Transforming growth factor beta 1 or TGF-β1 is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation, and apoptosis.To test the effect of TGF-β1 on cell apoptosis, HepG2 cells were seeded into 96-well plates at a density of 4,000 cells/well with 5% serum standard DMEM including various concentrations of recombinant rabbit TGF-β1. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μl of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-2 hours at 37 ℃. Apoptosis of HepG2 cells after incubation with TGF-β 1 for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant rabbit TGF-β1 for 48h. The result was shown in Figure 2. It was obvious thatTGF-β1 significantly inhibit cell viability of HepG2 cells. The ED50 is 7.0 μg/mL.



A B

Figure 1. Inhibition of HepG2 cells proliferation after stimulated with TGF-β1

(A) HepG2 cells cultured in DMEM, stimulated with 10μg/ml TGF-β1 for 48h;

(B) Unstimulated HepG2 cells cultured in DMEM for 48h.

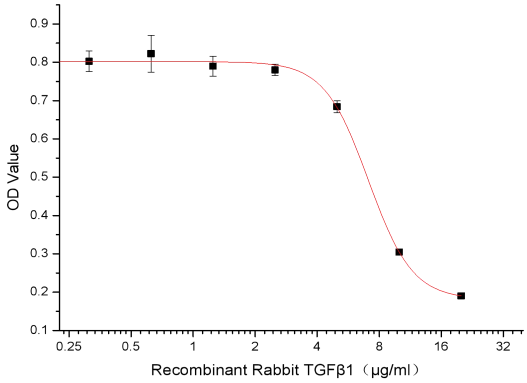


Figure 2. Inhibition of HepG2 cells proliferation after stimulated with TGF-β1.

[IDENTIFICATION]

Figure 3. SDS-PAGE

Sample: Active recombinant TGFb1, Rabbit

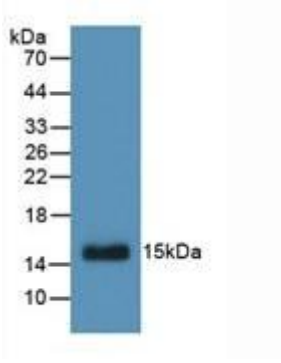


Figure 4. Western Blot

Sample: Recombinant TGFb1, Rabbit;

Antibody: Rabbit Anti- Rabbit TGFb1 Ab (PAA124Rb01)

[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.