APA124Mu62 100μg
Active Transforming Growth Factor Beta 1 (TGFb1)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Ala279~Ser390
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.3
Predicted Molecular Mass: 14.4kDa
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 2-8ºC 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]

ALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPG
ASASPCCVPQALEPLPIVYYVGRKPKVEQLSNMIVRSCKCS

[ACTIVITY]

Transforming growth factor beta 1 or TGF-β 1 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-β 1 on cell apoptosis, HepG2 cells were seeded into 96-well plates including various concentrations of recombinant mouse TGF-β 1. After incubated for 72h, 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 ℃. Proliferation of HepG2 cells after incubation with TGF-β 1 for 72h 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 mouse TGF-β 1 for 72h. The result was shown in Figure 2. It was obvious that TGF-β 1 significantly inhibit cell viability of HepG2 cells, the ED50 is 0.1 μg/ml.

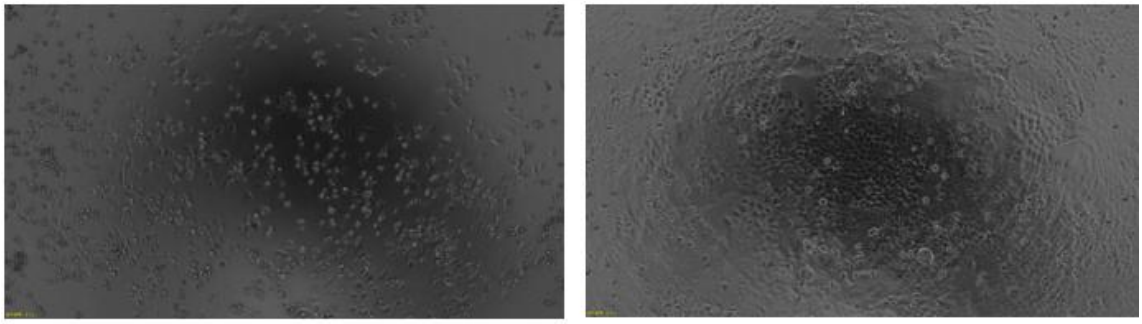

Figure 1. Inhibition of HepG2 cells proliferation after stimulated with TGF-β1

(A) HepG2 cells cultured in DMEM, stimulated with 0.6 μg/ml TGF-β1for 72h;
(B) Unstimulated HepG2 cells cultured in DMEM for 72h.

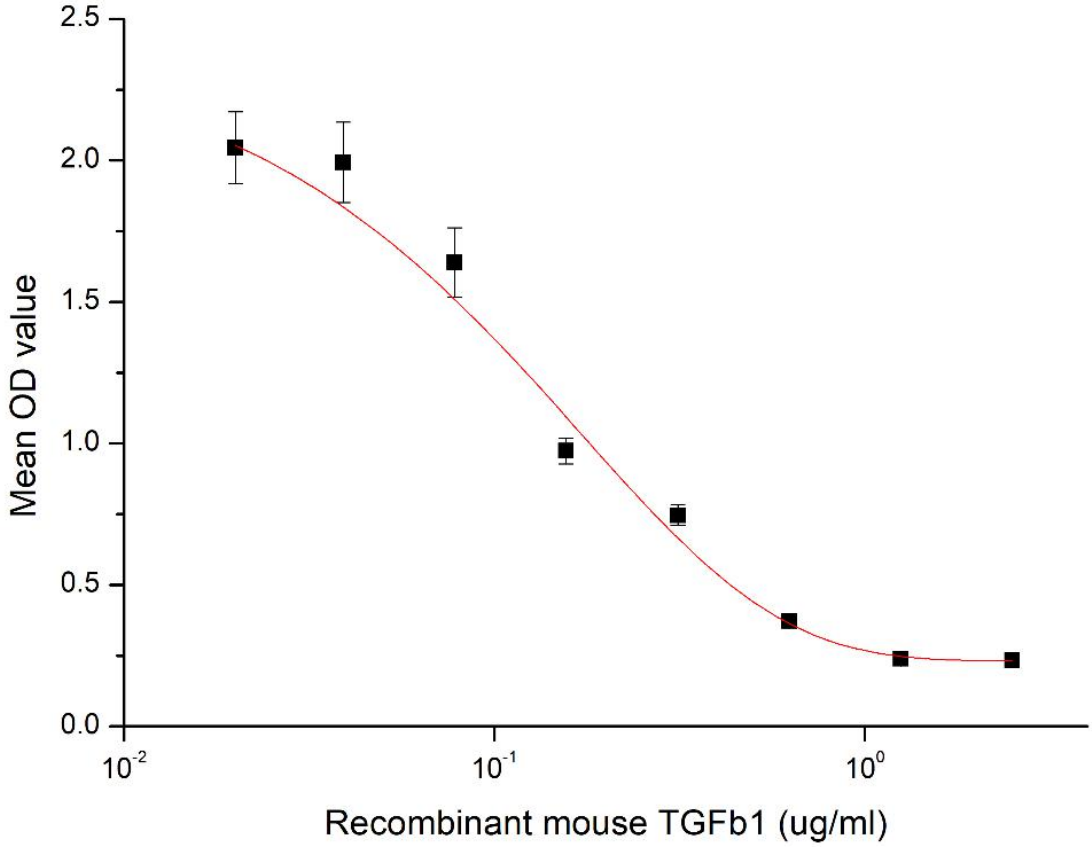

Figure 2. Inhibition of HepG2 cells proliferation after stimulated with rmTGF-β1.

[IDENTIFICATION]

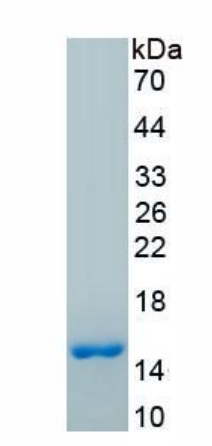

Figure 3. SDS-PAGE

Sample: Active recombinant TGFb1, Mouse

[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.