

Active Transforming Growth Factor Beta 1 (TGFβ1) Instruction Manual

SBPA079Mu01

Mus musculus (Mouse)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

Isoelectric Point

8.4

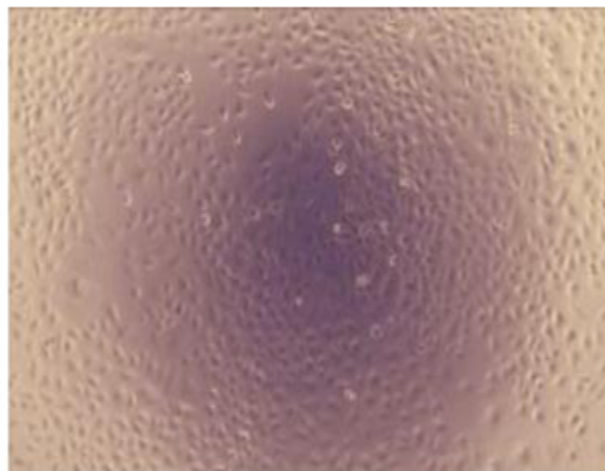
Applications

Cell culture; Activity Assays.

ACTIVITY TEST



A



B

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, A549 cells were seeded into 96-well plates at a density of 5,000 cells/well with 1% serum standard DMEM including various concentrations of recombinant mouse 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, 10μL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate

reader after incubating the plate for 2 hours at 37°C. Proliferation of A549 cells after incubation with TGF-β1 for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 assay after incubation with recombinant mouse TGF-β1 for 48h. The result was shown in Figure 2. It was obvious that TGF-β1 significantly inhibit cell viability of A549 cells. The ED50 is 7.1μg/mL. (A) A549 cells cultured in DMEM, stimulated with 12.5μg/mL TGF-β1 for 48h; (B) Unstimulated A549 cells cultured in DMEM for 48h.

Figure. Inhibition of A549 cells proliferation after stimulated with TGF-β1

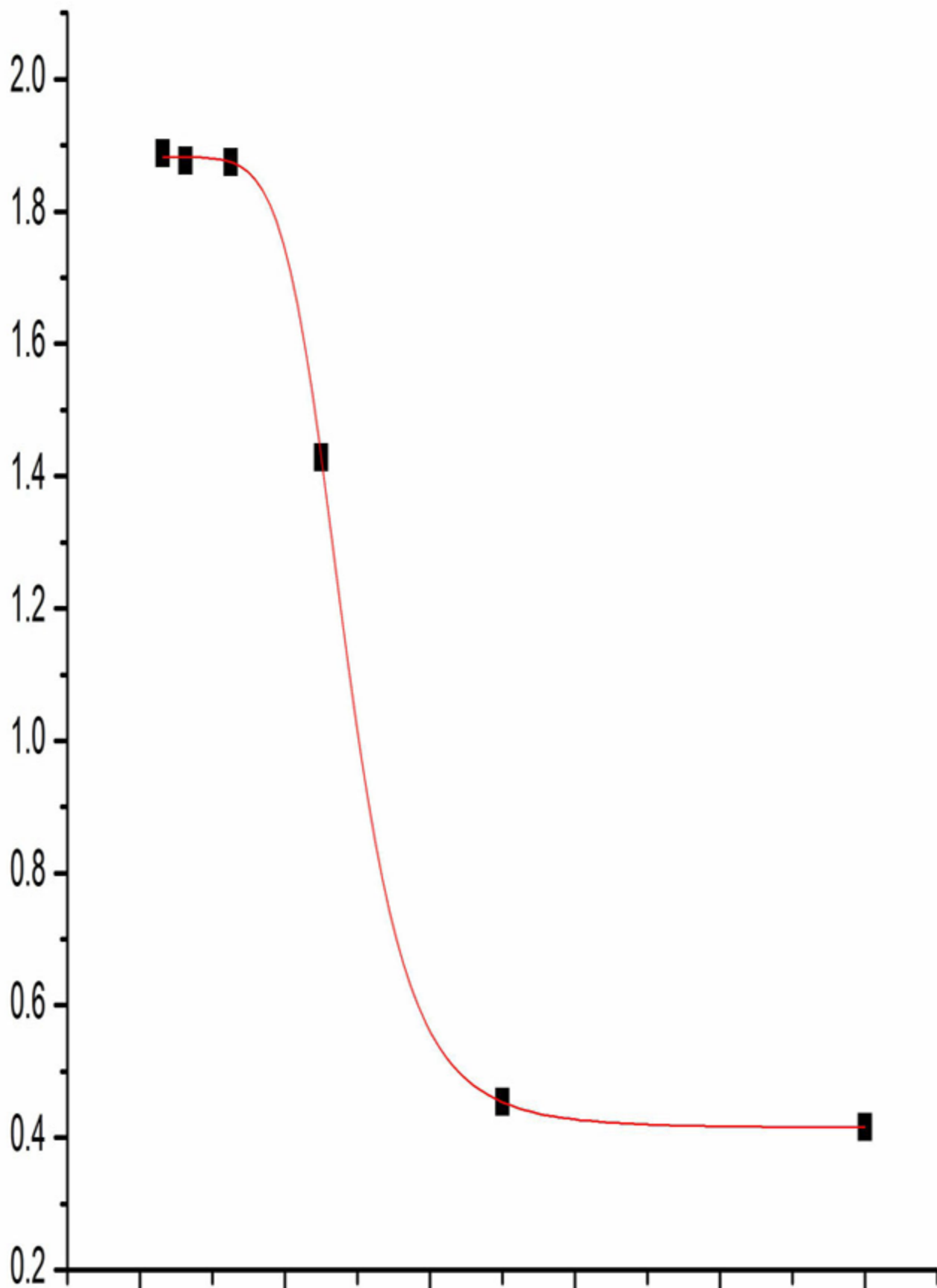


Figure. Inhibition of A549 cells proliferation after stimulated with TGF- β 1.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

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.

Image

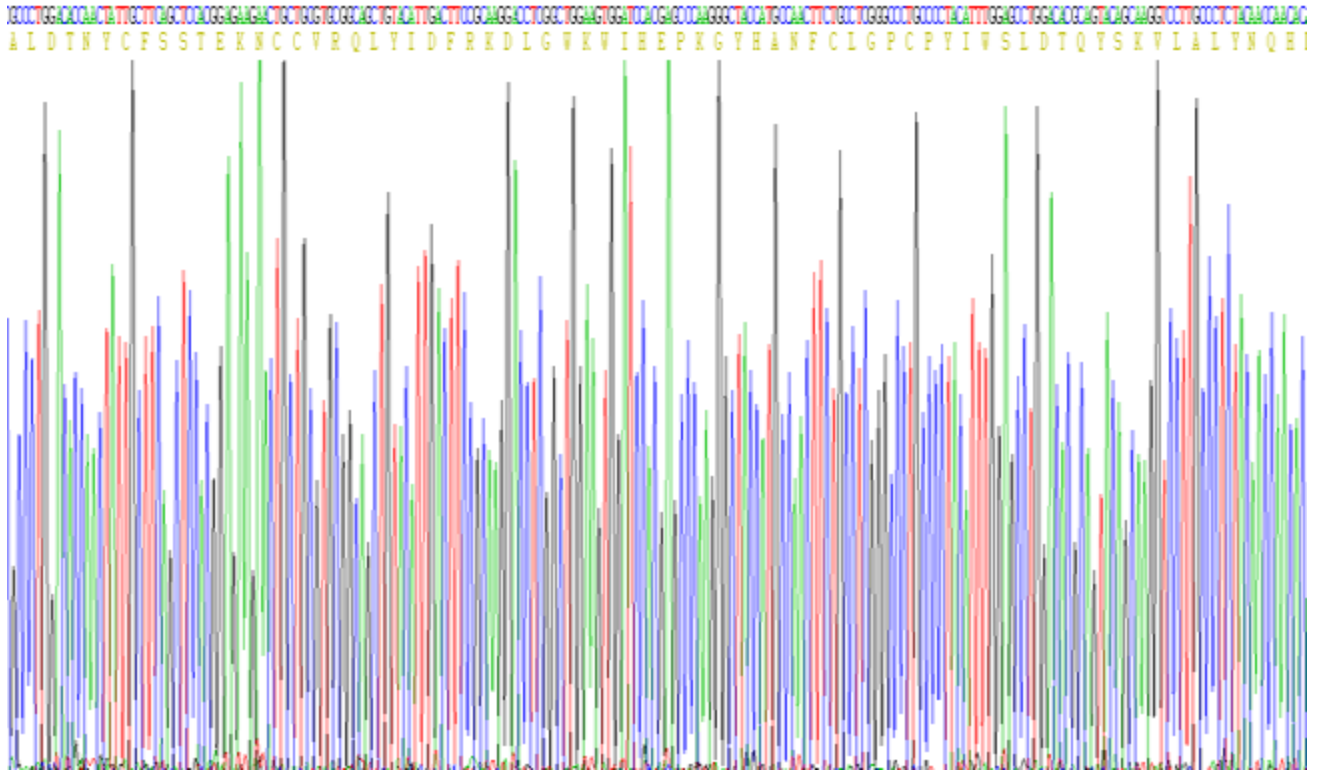


Figure. Gene Sequencing (Extract)

Image

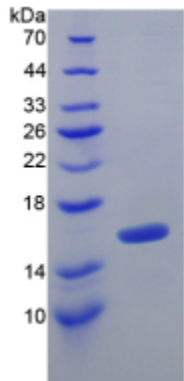


Figure. SDS-PAGE

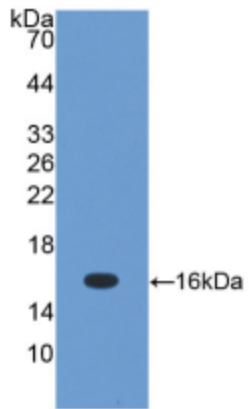


Figure. Western Blot

[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.