

Active Transforming Growth Factor Alpha (TGF α) Instruction Manual

SBPA078Hu01

Homo sapiens (Human)

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

6.6

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

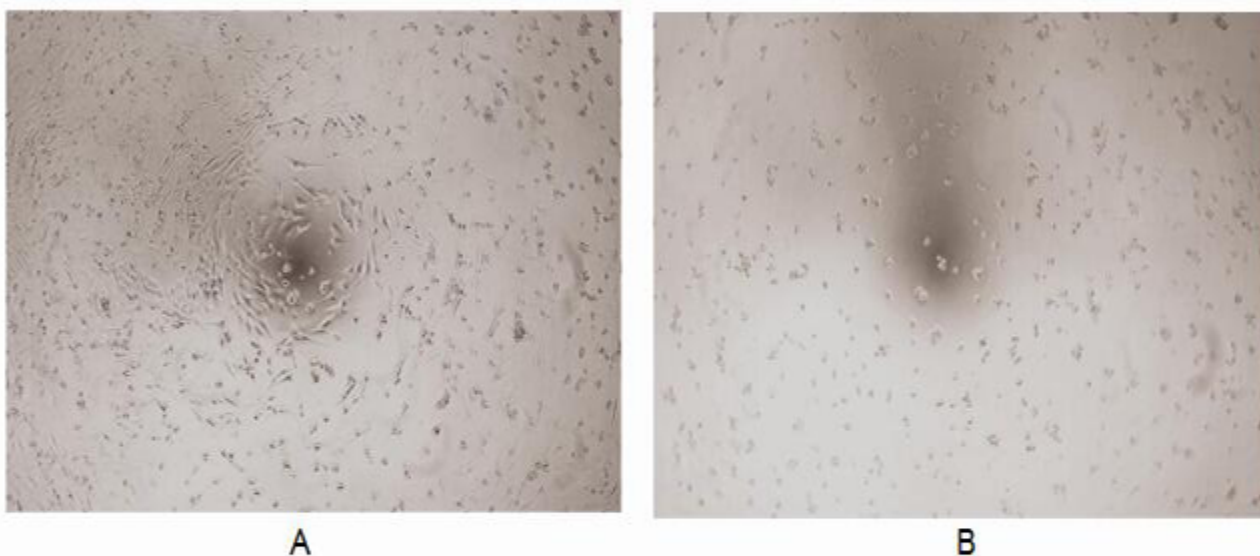


Figure 1. Cell proliferation of 3T3 cells after stimulated with TGF- α .

(A) 3T3 cells cultured in DMEM, stimulated with 1ng/mL TGF- α 72h;

(B) Unstimulated 3T3 cells cultured in serum-free DMEM for 72h.

Transforming growth factor alpha (TGF- α), a ligand for the epidermal growth factor receptor, which activates a signaling pathway for cell proliferation, differentiation and development. To test the effect of TGF- α on cell proliferation of 3T3 fibroblasts, 3T3 cells were seeded into triplicate wells of 96-well plates at a density of 2, 000 cells/well

and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of TGF- α . After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ L of CCK-8 solution was added to each well of the plate, then measure the absorbance at 450nm using a microplate reader after incubating the plate for 1-4 hours at 37°C.

Cell proliferation of 3T3 cells after incubation with TGF- α for 72h observed by inverted microscope was shown in Figure 1.

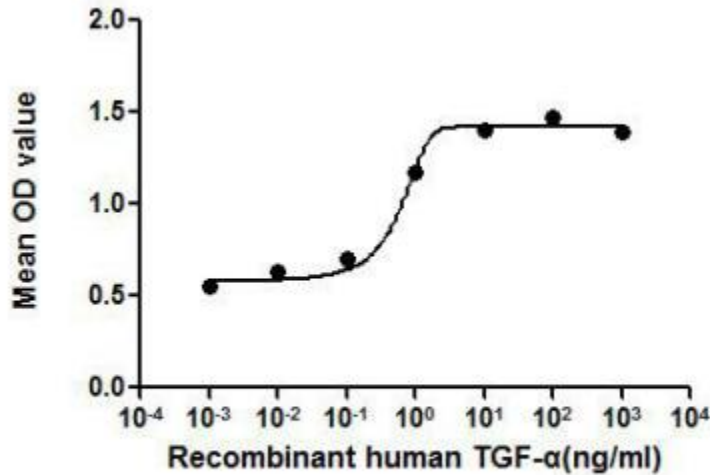


Figure 2. The dose-effect curve of TGF- α on 3T3 cells.

The dose-effect curve of TGF- α was shown in Figure 2. It was obvious that TGF- α significantly promoted cell proliferation of 3T3 cells. The ED50 for this effect is typically 0.6198 to 8.210ng/mL.

USAGE

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

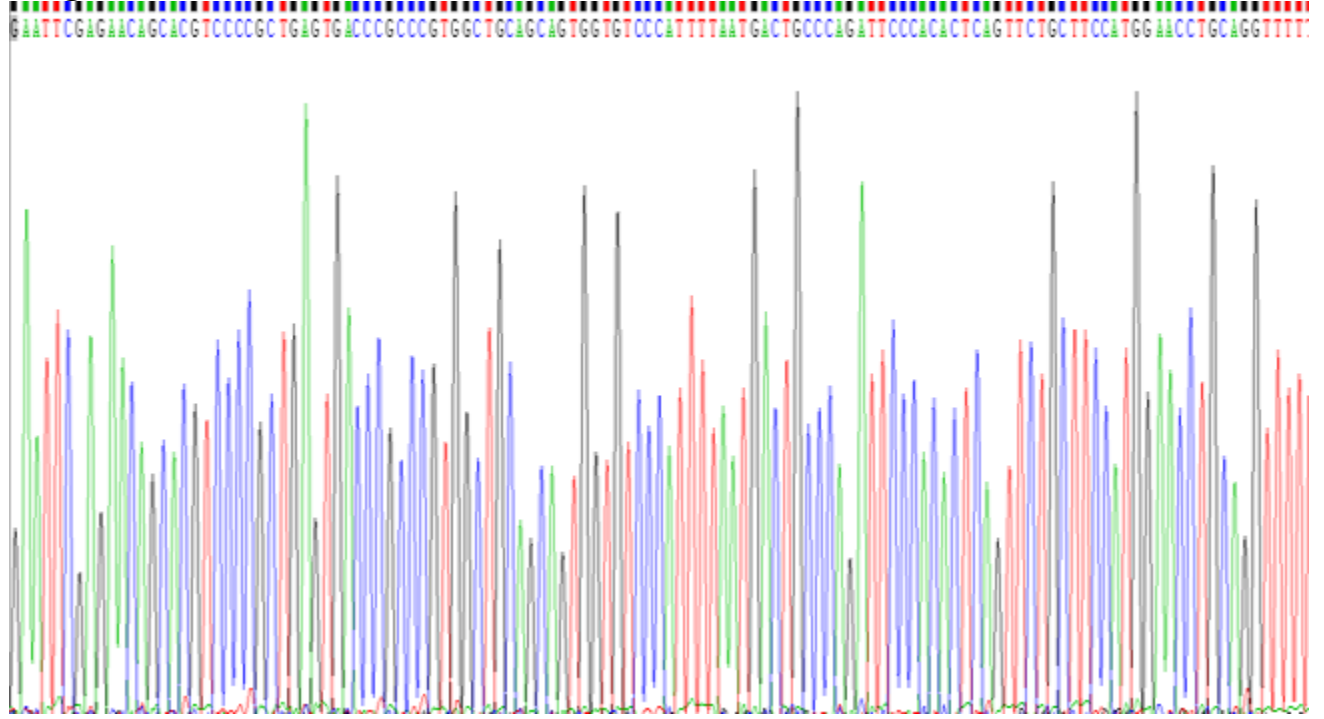
STORAGE

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



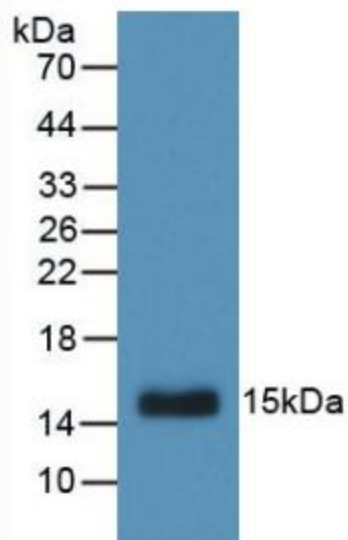


Figure. Western Blot; Sample: Recombinant TGF α , Human.

[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.