

Active Ciliary Neurotrophic Factor (CNTF) Instruction Manual

SBPA010Hu01

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

> 95%

Isoelectric Point

6.3

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

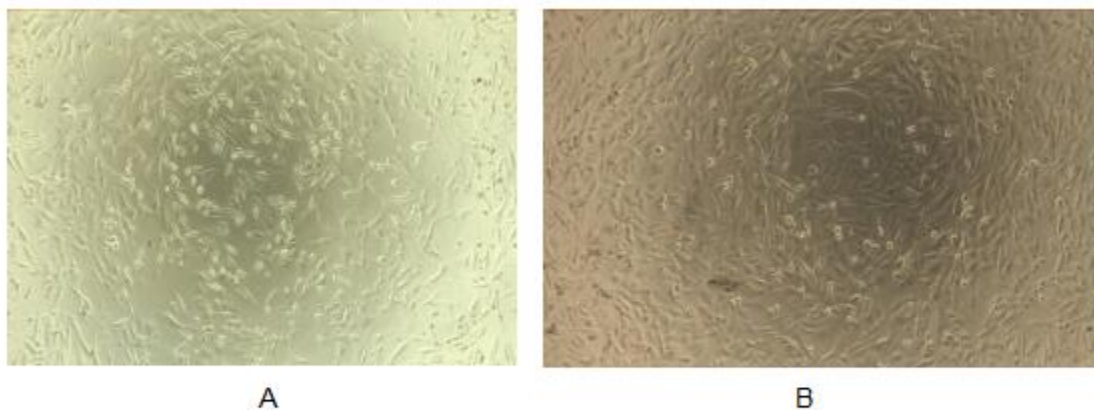


Figure 1. Cell proliferation of SK-N-SH cells after stimulated with CNTF
(A) Unstimulated SK-N-SH cells cultured in serum-free DMEM for 72h.
(B) SK-N-SH cells cultured in DMEM, stimulated with 10ng/ml CNTF 72h;

Ciliary Neurotrophic Factor (CNTF) is a common extracellular polypeptide hormone who has neuroprotective effects on a variety of central and also peripheral nervous system neurons. It promotes differentiation and maturation of oligodendrocyte precursor cells to oligodendrocytes under in vitro conditions and thus improves remyelination. In addition, CNTF can also increase the survival of mature oligodendrocytes. To test the effect of CNTF on cell proliferation of SK-N-SH, SK-N-SH cells were seeded into triplicate wells of 96-well plates at a density of 5,000 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 CNTF. 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 450 nm using a microplate reader after incubating the plate for 1-4 hours at 37 °C .Cell proliferation of SK-N-SH cells after incubation with CNTF for 72h observed by inverted microscope was shown in Figure 1.

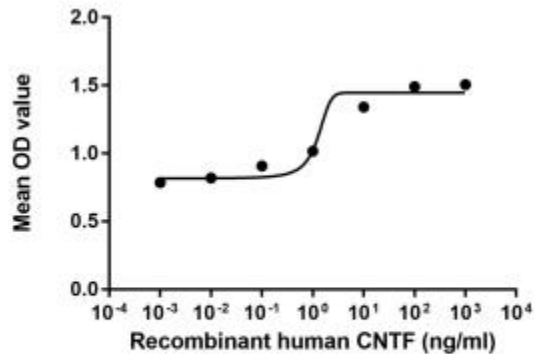


Figure 2. The dose-effect curve of CNTF on SK-N-SH cell

The dose-effect curve of CNTF was shown in Figure2. It was obvious that CNTF significantly promoted cell proliferation of SK-N-SH cells. The ED50 for this effect is typically 4.685-83.37ng/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

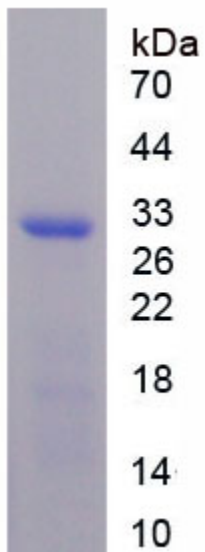


Figure. SDS-PAGE

[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.