APA021Hu01 100μg
Active Ciliary Neurotrophic Factor (CNTF)
Organism Species: *Homo sapiens (Human)*
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: Ala2~Met200
Tags: N-terminal His-tag
Purity: >95%
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: 6.3
Predicted Molecular Mass: 26.5kDa
Accurate Molecular Mass: 29kDa 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]

AFTEHSPLT PHRRDLCSRS IWLARKIRSD LTALTESYVK HQGLNKNINL
DSADGMPVAS TDQWSELTEA ERLQENLQAY RTFHVLLARL LEDQQVHFTP
TEGDFHQAIH TLLLQVAAFA YQIEELMILL EYKIPRNEAD GMPINVGDGG
LFEKKLWGLK VLQELSQWTV RSIHDLRFIS SHQTGIPARG SHYIANNKKM

[ACTIVITY]

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 μl 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.

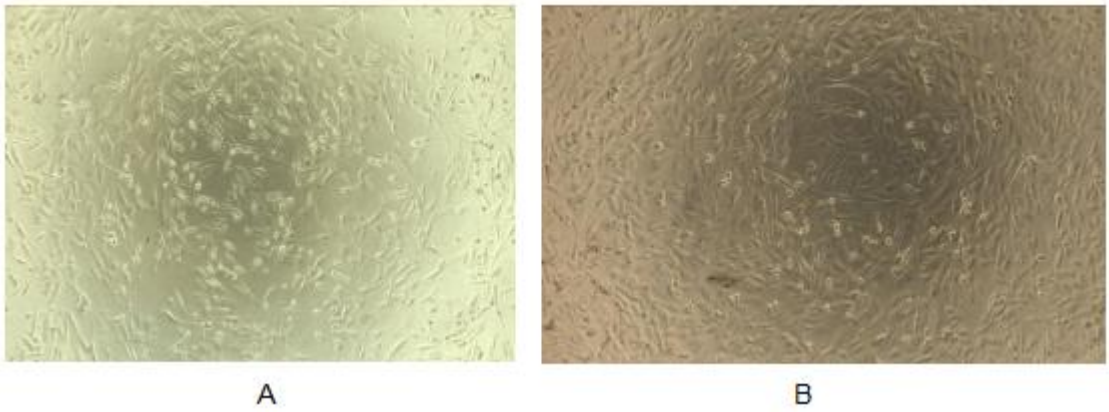

Figure 1. Cell proliferation of SK-N-SH cells after stimulated with CNTF

(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;

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.

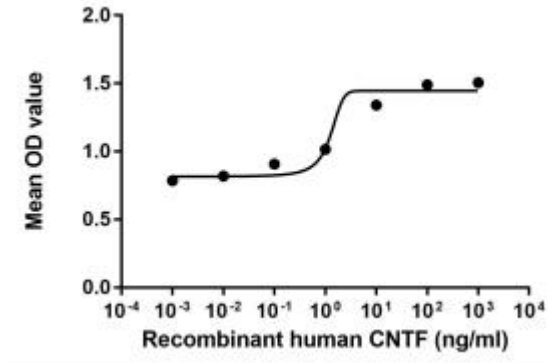

Figure 2. The dose-effect curve of CNTF on SK-N-SH cell

[IDENTIFICATION]

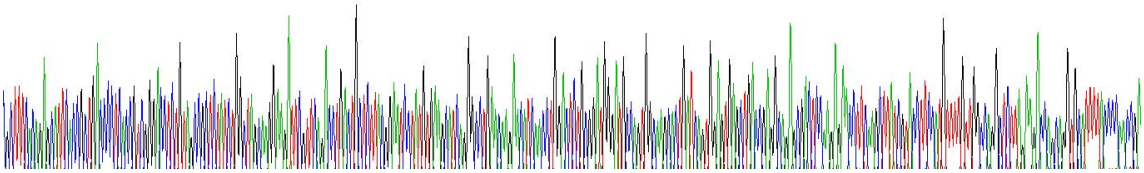

Figure 3. Gene Sequencing (extract)

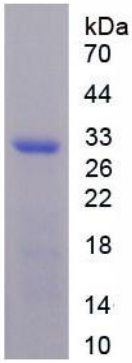

Figure 4. SDS-PAGE

Sample: Active recombinant CNTF, human

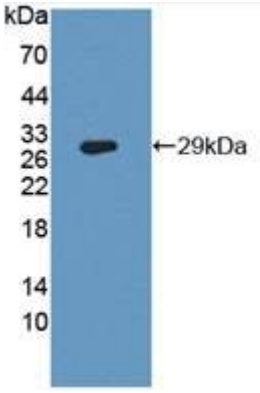

Figure 5. Western Blot

Sample: Recombinant CNTF, human;

Antibody: Rabbit Anti- human CNTF Ab (PAA021Hu01)

[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.