

APA021Hu61 100µg

Active Ciliary Neurotrophic Factor (CNTF)

Organism Species: *Homo sapiens* (Human)

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: Met1~Met200

Tags: N-terminal His-tag

Purity: >90%

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: 6.9

Predicted Molecular Mass: 24.6kDa

Accurate Molecular Mass: 24&23kDa 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 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.

[SEQUENCE]

MAFTEHSPLTPHRRDLCRSIWLARKIRSDLTALTESYVKHQGLNKNINLDSADGMPVASTDQ
WSELTEAERLQENLQAYRTFHVLLARLLEDQQVHFTPTEGDFHQAIHTLLQVAAFAYQIEELM
ILLEYKIPRNEADGMPINVGDDLFEKKLWGLKVLQELSQWTVRSIHDLRFISSHQTGIPARGSH
YIANNKKM

[ACTIVITY]

Ciliary Neurotrophic Factor (CNTF) is a multifunctional cytokine primarily known for neurotrophic roles. It supports survival and differentiation of ciliary ganglion neurons and other neuronal populations. Beyond neurotrophs, it aids neuroprotection by inhibiting neuronal apoptosis, promoting axonal regeneration, and modulating neuroinflammation, showing potential in treating neurodegenerative disorders. To test the effect of CNTF on cell proliferation, TF-1 cells were seeded into triplicate wells of 96-well plates and allowed to attach, replaced with various concentrations of recombinant human 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 the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 °C. Cell viability was assessed by CCK-8 assay after incubation with recombinant human CNTF for 72h. The result was shown in Figure 1. It was obvious that CNTF significantly increased cell viability of TF-1 cells. The ED50 of recombinant human CNTF is 4.82µg/ml.

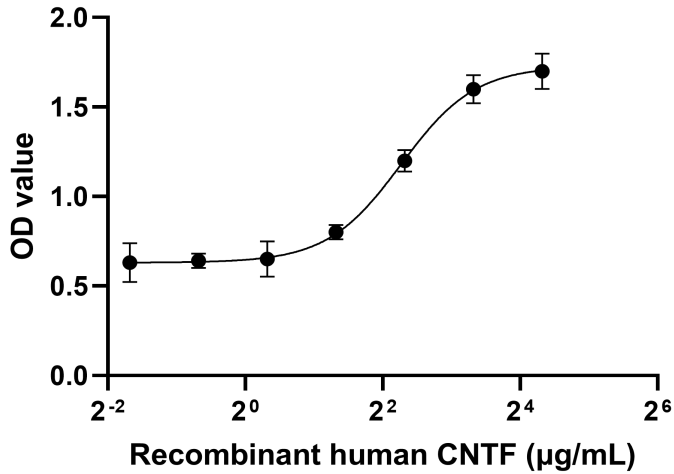


Figure.1 The dose-effect curve of recombinant human CNTF on TF-1 cells

[IDENTIFICATION]

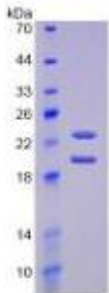


Figure 2. SDS-PAGE

Sample: Active recombinant CNTF, 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.