

Human CNTF Protein (His Tag)

Catalog Number: 11841-H07E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

HCNTF

Protein Construction:

A DNA sequence encoding the human CNTF (NP_000605.1) (Ala 2-Met 200) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human His-CNTF (cat:11841-H07E) at 10 µg/ml (100 µl/well) can bind biotinylated rat CNTFR-His (Cat:80019-R08B). The EC_{50} of biotinylated rat CNTFR-His (Cat:80019-R08B) is 60-140 ng/ml. 2. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED_{50} for this effect is typically 1-4 µg/mL.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human CNTF consisting of 214 amino acids and has a calculated molecular mass of 24.5 kDa. The apparent molecular mass of the protein is approximately 27-30 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

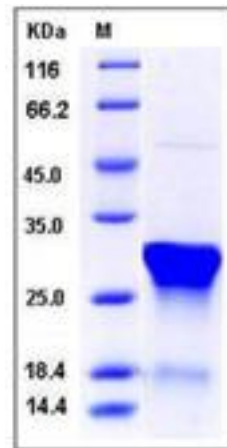
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Ciliary neurotrophic factor (CNTF) is a member of the cytokine family. It is a polypeptide hormone that have functions in promoting neurotransmitter synthesis and neurite outgrowth in certain neuronal populations. Its actions appear to be restricted to the nervous system. Ciliary neurotrophic factor (CNTF) has biological effects through the activation of a multi- subunit receptor complex, consisting of an extracellular CNTF binding subunit (CNTF α) and two transmembrane signal transduction proteins: glycoprotein gp130 and LIF receptor. CNTF is considered as a potent survival factor of neurons and oligodendrocyte and may be relevant in reducing tissue destruction during inflammatory attacks. CNTF also is a survival factor for neurons of the peripheral sensory sympathetic and ciliary ganglia. It has been reported that CNTF could be an agent that has therapeutic potential and possibly induces differentiation of large multipolar ganglionic phenotype in a subset of progenitors.

References

1.Dutt K, *et al.* (2010) Ciliary neurotrophic factor: a survival and differentiation inducer in human retinal progenitors. *In Vitro Cell Dev Biol Anim.* 46 (7) : 635-46. 2.Lam A, *et al.*(1991) Sequence and structural organization of the human gene encoding ciliary neurotrophic factor. *Gene* 102 (2) : 271-6. 3.Bazan JF. (1991) Neurotrophic cytokines in the hematopoietic fold. *Neuron* 7 (2) : 197-208.

[CNTF related areas, pathways, and other information](#)

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