

Human CNTF Protein (His Tag)

Catalog Number: 11841-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

HCNTF, CNTF

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 EC₅₀ 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 ED₅₀ 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 and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

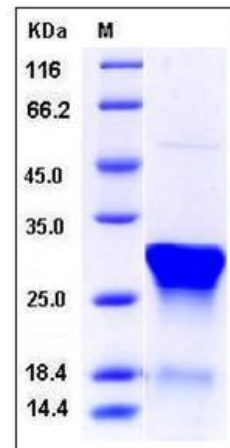
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Ciliary neurotrophic factor, also known as CNTF, is a cytoplasm protein which belongs to the CNTF family. CNTF is a survival factor for various neuronal cell types. It seems to prevent the degeneration of motor axons after axotomy. CNTF is expressed in glial cells within the central and peripheral nervous systems. CNTF stimulates gene expression, cell survival or differentiation in a variety of neuronal cell types such as sensory, sympathetic, ciliary and motor neurons. CNTF attracts considerable attention because it supports survival and differentiation of various types of neurons and glial cells. CNTF functions as a moderate neurotrophic factor in mature motor neurons. CNTF is not essential for neural development, but instead acts in response to injury or other stresses. The CNTF receptor complex is most closely related to, and shares subunits with the receptor complexes for interleukin-6 and leukemia inhibitory factor. The specificity conferring alpha subunit of the CNTF complex (CNTFR alpha), is extremely well conserved across species, and has a distribution localized predominantly to the nervous system and skeletal muscle.

References

1. Sleeman, MW. et al., 2000, Pharm Acta Helv. 74 (2-3): 265-72.
2. Kobayashi, H. et al., 2000, Neuropeptides. 34 (6): 338-47.
3. Yokota, H. et al., 2005, Neurosci Lett 377 (3): 170-5.
4. Hata, K. et al., 2002, Neuroreport 13 (5): 735-9.

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Fax : +86-10-51029969 • Tel: +86-400-890-9989 • <http://www.sinobiological.com>