Mouse CNTF / Ciliary Neurotrophic Factor Protein (His Tag)

Catalog Number: 51181-M07E

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

AI429687

Protein Construction:

A DNA sequence encoding the mouse CNTF (NP_740756.1) (Ala2-Met198) was expressed with a polyhistidine tag at the N-terminus.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized mouse CNTF (cat:51181-M07E) 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 5-12 ng/ml.

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: His

Molecular Mass:

The recombinant mouse CNTF consists of 215 amino acids and predicts a molecular mass of 24.7 KDa. It migrates as an approximately 25 KDa band 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:

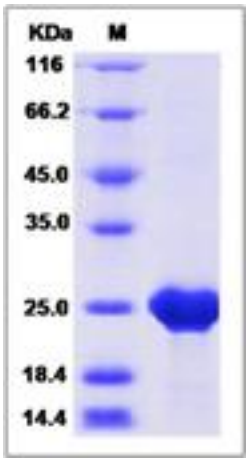
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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. It's 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 extracelluar CNTF binding subunit (CNTFα) and two transmembrane signal transduction proteins: glycoprotein gp130 and LIF receptor. CNTF is considered as a potent survival factor of neurons and oligodendrocyteands 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) Neuropoietic cytokines in the hematopoietic fold. Neuron 7 (2) : 197–208.

CNTF related areas, pathways, and other information