

# Human CNTFR / CNTFR-alpha Protein (His Tag)

Catalog Number: 11012-H08B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CNTFR

### Protein Construction:

The amino acids sequence corresponding to (Met 1-Pro 346) of human CNTFR (NP\_001833.1) was fused with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** > 98 % as determined by SDS-PAGE

### Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized human CNTFR at 10 µg/ml (100 µl/well) can bind biotinylated human CNTF with a linear range of 1.28-160 ng/ml.

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

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

**Predicted N terminal:** Gln 23

### Molecular Mass:

The recombinant human CNTFR consists of 335 amino acids and predicts a molecular mass of 36 kDa. The apparent molecular mass of rhCNTFR is approximately 45-48 kDa in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0

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:

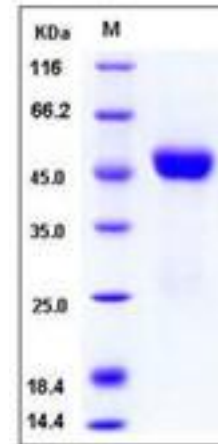
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 has 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 (CNTFα) and two transmembrane signal transduction proteins: glycoprotein gp130 and LIF receptor. CNTF is considered as a potent survival factor of neurons and oligodendrocytes and may be relevant in reducing tissue destruction during inflammatory attacks. CNTF is also 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.

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