

## Recombinant Rat CNTF

### Information

<b>Gene ID</b>	
<b>Accession #</b>	
<b>Alternate Names</b>	
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 22.7 kDa, a single non-glycosylated polypeptide chain containing 199 amino acids..
<b>AA Sequence</b>	AFAEQTPLTL HRRDLCSRSI WLARKIRSDL TALMESYVKH QGLNKNINLD SVDGVPVAST DRWSEMTEAE RLQENLQAYR TFQGMTLTKLL EDQRVHFTPT EGDFHQAIHT LMLQVSAFAY QLEELMVLE QKIPENEADG MPATVGDGGL FEKKLWGLKV LQELSQWTVR SIHDLRVISS HQMGISALES HYGAKDKQM
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 2 ×PBS, pH 7.4, 2 % trehalose.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 30 ng/ml, corresponding to a specific activity of > 3.3 ×10 <sup>4</sup> IU/mg.
<b>Shipping Condition</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5µg	100µg	500µg
Recombinant Human Ciliary Neurotrophic Factor	5µg	100µg	500µg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rRtCNTF as determined by LAL method.

## Description

Ciliary neurotrophic factor (CNTF) is a polypeptide hormone whose actions appear to be restricted to the nervous system where it promotes neurotransmitter synthesis and neurite outgrowth in certain neuronal populations. CNTF was initially identified as a trophic factor for embryonic chick ciliary parasympathetic neurons in culture. Furthermore, the protein is also a potent survival factor for neurons and oligodendrocytes and may be relevant in reducing tissue destruction during inflammatory attacks. In addition, CNTF is useful for treatment of motor neuron disease and it could reduce food intake without causing hunger or stress. Recombinant rat CNTF containing 199 amino acids and it shares 83 % and 95 % a.a. sequence identity with human and murine CNTF.

## Reference

**APExBIO Technology**

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