

Cntf

Recombinant Rat Ciliary Neurotrophic Factor

Catalog No.	CRR011A	Quantity:	5 µg
	CRR011B		25 µg
	CRR011C		1 mg

Description: Recombinant Rat Ciliary Neurotrophic Factor

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 mouse CNTF. Recombinant Rat Ciliary Neurotrophic Factor is a single non-glycosylated polypeptide chain containing 199 amino acids.

Gene ID: 25707

Source: *E. coli*

Molecular Weight: 22.7 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 2× PBS, pH 7.4, + 2 % trehalose.

Purity: >95% by SDS-PAGE and HPLC analyses

Endotoxin Level: <1 EU/µg as determined by LAL method.

Biological Activity: 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.

Specific Activity: >3.3 × 10⁴ IU/mg

Amino Acid Sequence: AFAEQTPLTL HRRDLCSRSI WLARKIRSDL TALMESYVKH QGLNKNINLD
SVDGVPVAST DRWSEMTEAE RLQENLQAYR TFQGMLTKLL EDQRVHFTPT
EGDFHQAIHT LMLQVSAFAY QLEELMVLL E QKIPENEADG MPATVGDGGL
FEKKLWGLKV LQELSQWTVR SIHDLRVISS HQMGISALES HYGAKDKQM

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: The lyophilized protein is stable at 2-8°C. Upon receipt, store desiccated at -20°C. After reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. For long term storage of reconstituted protein, it is recommended that a carrier protein such as 0.1% BSA or HSA be added. This depends on the particular application.

Avoid repeated freeze/thaw cycles.

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