

Prime Gene Recombinant Rat Ciliary Neurotrophic Factor (rRtCNTF)

PrimeGene Technical Data Sheet

147-08 **Catalog Number:**

Source: Escherichia coli.

Molecular Weight: Approximately 22.7 kDa, a single non-glycosylated polypeptide chain containing 199 amino acids.

Quantity: $5\mu g/25\mu g/1000\mu g$

AA Sequence: AFAEQTPLTL HRRDLCSRSI WLARKIRSDL TALMESYVKH QGLNKNINLD

> SVDGVPVAST DRWSEMTEAE RLQENLQAYR TFQGMLTKLL EDQRVHFTPT EGDFHQAIHT LMLQVSAFAY QLEELMVLLE QKIPENEADG MPATVGDGGL FEKKLWGLKV LQELSQWTVR SIHDLRVISS HQMGISALES HYGAKDKQM

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

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, corresponding to a specific activity of $> 3.3 \times 10^4$

IU/mg.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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

Endotoxin: Less than 1 EU/µg of rRtCNTF as determined by LAL method.

Reconstitution: 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 mg/mL. Stock solutions should be apportioned into working aliquots and stored

at \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Stability & Storage:

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.

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. NOT FOR HUMAN USE.

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 murine CNTF.

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Email: info.pg@bio-techne.com Website: www.primegene.com.cn Website: www.primegene.com Tel: +86 21 52380373 Fax: +86 21 61077348