

Recombinant Rat Cntf protein

Cat. No. Cntf-594R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Cntf protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	199
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.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 2 × PBS, pH 7.4, 2 % trehalose.
Bio-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 ×

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	10 ⁴ IU/mg.
Molecular Mass	Approximately 22.7 kDa, a single non-glycosylated polypeptide chain containing 199 amino acids.
AA Sequence	AFAEQTPLTLHRRDLCSRSIWLARKIRSDLTALMESYVKHQGLNKNINLDSVDGVPV ASTDRWSEMTEAERLQENLQAYRTFQGMLTKLLEDQRVHFTPTEGDFHQAIHTLML QVSAFAYQLEELMVLLQKIPENEADGMPATVGDGGLFEKKLWGLKVLQELSQWTV RSIHDLRVISSHQMGISALESHYGAKDKQM
Endotoxin	Less than 1 EU/g of rRtCNTF as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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 ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	Cntf
Official Symbol	Cntf

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Synonyms	CNTF; ciliary neurotrophic factor; ciliary neurotropic factor;
Gene ID	25707
mRNA Refseq	NM_013166
Protein Refseq	NP_037298
UniProt ID	P20294
SDS-PAGE of Cntf-594R 	