Recombinant Rat CNTF

Catalog # FL072

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 98% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/μg of rRtCNTF protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Rat
Tag	Tag free.
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 ≥ 3.3×10^4 IU/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, with 300 mM NaCl, 3% (v/v) Trehalose, pH 7.2.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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.
Accession #	P20294 Ala2-Met200
Amino acid sequence	AFAEQTPLTLHRRDLCSRSIWLARKIRSDLTALMESYVKHQGLNKNINLDSVDGVPVASTDRWSEMTEAERLQENLQAYRTFQGMLTKLLEDQRVHFTPTEGDFHQAIHTLMLQVSAFAYQLEELMVLLEQKIPENEADGMPATVGDGGLFEKKLWGLKVLQELSQWTVRSIHDLRVISSHQMGISALESHYGAKDKQM
Molecular weight	Approximately 22.7 kDa, a single non-glycosylated polypeptide chain containing 199 amino acids.
Synonyms	Ciliary neurotrophic factor
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 36 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.
Precautions	Recombinant Rat CNTF is for research use only and not for use in diagnostic or therapeutic procedures.

Background

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. Rat CNTF shares 83% and 95% a.a. sequence identity with human and murine CNTF. Recombinant rat CNTF is a 22.7kDa globular protein containing 199 amino acid.

Validation Images