Datasheet

Cat. No. P1182

Recombinant Mouse CNTF

Information

Gene ID	12803
Accession #	P51642
Alternate Names	
Source	*Escherichia coli.*
M.Wt	Approximately 22.5 kDa, a single non-glycosylated polypeptide chain containing 197 amino acids.
AA Sequence	AFAEQSPLTL HRRDLCSRSI WLARKIRSDL TALMESYVKH QGLNKNISLD SVDGVPVAST DRWSEMTEAE RLQENLQAYR TFQGMLTKLL EDQRVHFTPT EGDFHQAIHT LTLQVSAFAY QLEELMALLE QKVPEKEADG MPVTIGDGGL FEKKLWGLKV LQELSQWTVR SIHDLRVISS HHMGISAHES HYGAKQM
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	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.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl, with 5 % Trehalose, 0.02 % Tween-20.
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 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} 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.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 μg	100 μg	500 μg
Recombinant Mouse CNTF	5 μg	100 μg	500 μg

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- 12 months from date of receipt, -20 to -70 °C as supplied.
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Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuCNTF 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 murine CNTF containing 198 amino acids and it shares 82 % and 95 % a.a. sequence identity with human and rat CNTF.

Reference

1. Lam A, Fuller F, Miller J, et al. 1991. Gene. 102:271-6.

2. Bazan JF. 1991. Neuron. 7:197-208.

3. McGregor NE, Poulton IJ, Walker EC, et al. 2010. Calcif Tissue Int. 86:261-70.

4. Lambert PD, Anderson KD, Sleeman MW, et al. 2001. Proc Natl Acad Sci U S A. 98:4652-7.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com