

Recombinant Rat CNTF

CATALOG #:	4019-20 4019-1000	20 µg 1 mg
LOT #:	_____	
SYNONYMS:	HCNTF, CNTF, Ciliary Neurotrophic Factor Natriuretic	
SOURCE:	<i>E. coli</i>	
PURITY:	> 99 % by SDS-PAGE and Gel Filtration	
FORM:	Lyophilized from 0.025 % NaHCO ₃	

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in sterile ddH₂O or 0.4 % NaHCO₃ adjusted to pH 8-9 to a concentration ≥ 100 µg/ml. This solution can then be diluted into other aqueous buffer, preferably in the presence of carrier protein.

STORAGE CONDITIONS:

The lyophilized protein is best-stored desiccated at -20°C. the reconstituted CNTF should be stored at 4°C for 2-7 days and as working aliquots at -20°C for future use. Avoid freeze/thaw cycles.

DESCRIPTION:

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. The protein is a potent survival factor for neurons and oligodendrocytes and may be relevant in reducing tissue destruction during inflammatory attacks. A mutation in this gene, which results in aberrant splicing, leads to ciliary neurotrophic factor deficiency, but this phenotype is not causally related to neurologic disease. CNTF is a survival factor for various neuronal cell types and seems to prevent the degeneration of motor axons after axotomy. CNTF Recombinant Rat produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 200 amino acids and having a molecular mass of 22834 Dalton. The CNTF is purified by proprietary chromatographic techniques.

AMINO ACID SEQUENCE:

AFAEQPTLTLHRRDLSSRSIWLARKIRSDLTALMESYVKHQGLNKNINLDSVDGVPVASTDRW
SEMTEAERLQENLQAYRTFQGMLTKLLEDQQRVHFTPTGDFHQAIHTLMLQVSAFAYQLEEL
MVLLEQKIPENADGMPATVGDGGLFEKKLWGLKVLQELSQWTVRSIHDLRVISSHQMGISAL
ESHYGAQDKQM

BIOLOGICAL ACTIVITY:

Fully biologically active by its ability to phosphorylate STAT3 in several cells lines.

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