

Active Recombinant Human CNTF Protein (199 aa)

Cat. No. CNTF-435C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Ciliary Neurotrophic Factor (rhCNTF) produced in E. coli is a single non-glycosylated polypeptide chain containing 199 amino acids. A fully biologically active molecule, rhCNTF has a molecular mass of 22.8 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	199
Description	Ciliary Neurotrophic Factor (CNTF) is a cytokine belonging to the Interleukin 6 (IL-6) family, which also includes IL-6, Oncostatin M, Leukemia Inhibitory Factor (LIF), and Cardiotrophin-1. Structurally, CNTF resembles a four-helix bundle composition, similar to the other members of the IL-6 family. The receptor for CNTF is composed of three parts: a gp130-like subunit common in the IL-6 receptor family, a LIF Receptor β subunit, and a CNTF specific α receptor subunit. Upon binding to the CNTF, the β subunit of the CNTF receptor will undergo tyrosine phosphorylation, and activate the intracellular JAK/STAT pathway. The main function of CNTF in vivo is to promote the differentiation and survival of a variety of neurons and glial cells, including sympathetic precursor cells and spinal motor neurons.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 200 ng/mL, measured cell proliferation assay using TF-1 cells, corresponding

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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	to a specific activity of $> 5 \times 10^3$ units/mg.
Molecular Mass	22.8 kDa, observed by reducing SDS-PAGE.
AA Sequence	AFTEHSPLTPHRRDLCSRSIWLARKIRSDLTALTESYVKHQGLNKNINLDSADGMPV ASTDQWSELTEAERLQENLQAYRTFHVLLARLLEDQQVHFTPTEGDFHQAIHTLLQ VAAFAYQIEELMILLEYKIPRNEADGMPINVGDDGLFEKKLWGLKVLQELSQWTVRSI HDLRFISSHQTGIPARGSHYIANNKKM
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant human Ciliary Neurotrophic Factor (rhCNTF) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhCNTF remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μg/mL.

GENE INFORMATION

Gene Name	CNTF ciliary neurotrophic factor [Homo sapiens]
Official Symbol	CNTF
Synonyms	CNTF; ciliary neurotrophic factor; HCNTF;
Gene ID	1270

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mRNA Refseq	NM_000614
Protein Refseq	NP_000605
MIM	118945
UniProt ID	P26441

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