Cntf
Recombinant Rat Ciliary Neurotrophic Factor

Catalog No.	CRC401A	**Quantity:**	5 µg
	CRC401B		25 µg
	CRC401C		1 mg

Alternate Names: CNTF

Description: Ciliary neurotrophic factor (CNTF) is a polypeptide initially purified from chick embryo ocular tissue and identified as a trophic factor for embryonic chick ciliary parasympathetic neurons in culture. Subsequent studies have demonstrated that CNTF is a survival factor for additional neuronal cell types including: dorsal root ganglion sensory neurons, sympathetic ganglion neurons, embryonic motor neurons, major pelvic ganglion neurons and hippocampal neurons. CNTF has also been shown to prevent the degeneration of motor axons after axotomy.

The cDNA for CNTF encodes a 199 amino acid residue polypeptide that lacks a signal sequence. CNTF is highly conserved across species and exhibits cross-species activities. Human and rat CNTF share approximately 83% homology in their protein sequence. CNTF is structurally related to IL-6, IL-11, LIF, and OSM. All of these four helix bundle cytokines share gp130 as a signal transducing subunit in their receptor complexes.

UniProt ID: P20294

Gene ID: 25707

Source: *E. coli*

Molecular Weight: 22.7 kDa (199 aa)

Formulation: Lyophilized in 5 mM Sodium Acetate, pH 6.5.

Purity: >98% by SDS-PAGE visualized using silver stain

Endotoxin Level: < 1 EU/µg

Biological Activity: Measured in a cell proliferation assay using TF1 human erythroleukemic cells. The ED_{50} for this effect is typically 3-15 ng/ml.

Amino Acid Sequence: AFAEQTPLTL HRRDLCSRSI WLARKIRSDL TALMESYVKH QGLNKNINLD SVDGVPVAST DRWSEMTEAE RLQENLQAYR TFQGMLTKLL EDQRVHFTPT EGDFHQAIHT LMLQVSAFAY QLEELMVLLE QKIPENEADG MPATVGDGGL FEKKLWGLKV LQELSQWTVR SIHDLRVISS HQMGISALES HYGAKDKQM

Reconstitution: **Centrifuge vial prior to opening.** The lyophilized CNTF is soluble in water and most aqueous buffers. The lyophilized protein should be reconstituted in PBS to a concentration of 0.1 mg/ml. **Do not vortex.** After complete solubilization of the protein, it may be further diluted with other solutions containing a carrier protein such as 0.1 % BSA.

Storage & Stability: The lyophilized protein is stable at -20°C to -80° for up to 1 year. Reconstituted working aliquots are stable for 1 week at 2-8°C and for 3 months at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

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