Ciliary Neurotrophic Factor, human recombinant, expressed in *E. coli*

**Catalog Number** C3710  
**Storage Temperature** –20 °C

**Synonym:** CNTF

**Product Description**

Ciliary neurotrophic factor (CNTF) was initially characterized as a survival factor for chick ciliary neurons *in vitro*, but has since been shown to promote the survival of a variety of other neuronal cell types, including dorsal root ganglion sensory neurons, embryonic motor neurons, and hippocampal neurons.

It has also been shown to inhibit the proliferation of E7 chick sympathetic neurons, induce the expression of vasoactive intestinal peptide immunoreactivity, and promote the differentiation of bipotential 02A progenitor cells to type-2-astrocytes *in vitro*.1

Recombinant, human CNTF is produced by the expression of a DNA sequence that encodes a 200 amino acid residue polypeptide lacking a signal sequence. It is highly conserved across species and exhibits cross-species interaction.

Ciliary neurotrophic factor is lyophilized from 10 mM citric acid, pH 3.0, with 75 mM sodium chloride.

**Purity:** ≥97% (SDS-PAGE)

**EC50:** 50–150 ng/mL

The biological activity of CNTF is measured in a cell proliferation assay using a factor-dependent human erythroleukemic cell line, TF-1.2 The EC50 is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell-based bioassay. CNTF has been demonstrated to support the survival and stimulate neurite outgrowth of cultured embryonic chick dorsal root ganglia.

**Endotoxin:** ≤1 ng/µg of growth factor

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**Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

**Preparation Instructions**

Reconstitute the contents of the vial with water to a final concentration of 0.1–1.0 mg/mL.

**Storage/Stability**

Prior to reconstitution, store at –20 °C for a maximum of 6 months.

After reconstitution, store at 2–8 °C for no more than 1 month. For extended storage, freeze in working aliquots at –70 °C or –20 °C. Repeated freezing and thawing is not recommended.

**References**


PCG,BG,JJJ,TD,MAM 06/17-1