

Recombinant Human CNTF Protein

CAT. NO: R00609

Size: 100µg

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.

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 at GenScript.

Amino Acid Sequence:

HRRDL CSRSI WLARK IRSDL TALTE
SYVKH QGLNK NINLD SADGM PVA
DQWSE LTEAE RLQEN LQAYR TFHVL
LARLL EDQQV HFTPT EGDFH QAIHT
LLLQV AAFAY QIEEL MILLE YKIPR
NEADG MPINV GDGGL FEKKL WGLKV
LQELS QWTVR SIHDL RFISS HQTGI
PARGS HYIAN NKKM

Source: *E. coli* His12-Met200

Species: human

Purity: >95%, by SDS-PAGE quantitative densitometry by Coomassie® Blue Staining.

Molecular Weight: 21.7KD

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstitute in ddH₂O at 100 µg/mL.

Endotoxin: Less than 1 EU/µg of rhCNTF as determined by LAL method.

Storage:

Lyophilized recombinant human Ciliary Neurotrophic Factor (rhCNTF) remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rhCNTF remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.