

Datasheet for ABIN1589602 **CNTF Protein**



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Overview

Quantity:	5 µg
Target:	CNTF
Origin:	Rat
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	CNTF
Sequence:	AFAEQTPLTL HRRDLCSRSI WLARKIRSDL TALMESYVKH QGLNKNINLD SVDGVPVAST DRWSEMTEAE RLQENLQAYR TFQGMLTKLL EDQRVHFTPT EGDHFQAIHT LMLQVSAFAY QLEELMVILLE QKIPENEADG MPATVGDGGL FEKKLWGLKV LQELSQWTVR SIHDLRVISS HQMGISALES HYGAKDKQM
Specificity:	Chromosomal location:1q43
Characteristics:	Length (aa):199
Purity:	> 98 % by SDS-PAGE
Endotoxin Level:	< 0.1 ng per µg of CNTF

Target Details

Target:	CNTF
Alternative Name:	CNTF (CNTF Products)

Target Details

Background: 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: primary sensory neurons, motor neurons, basal forebrain neurons and type 2 astrocytes. CNTF has also been shown to prevent the degeneration of motor axons after axotomy. The cDNA for CNTF encodes a 200 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 IL6, IL11, LIF, and OSM. All of these four helix bundle cytokines share gp130 as a signal-transducing subunit in their receptor complexes. The cDNA for recombinant rat CNTF (Ala2–Met200) was cloned from total RNA of a rat embryo using standard protocols. Ciliary Neurotrophic Factor (CNTF) is a potent neural factor that was originally characterized as a survivability factor for chick ciliary neurons in vitro. More recently, CNTF has been shown to promote survivability and differentiation of other neuronal cell types. Rat CNTF is a 22.7 kDa protein containing 199 amino acid residues.

Synonyms: Cntf

Molecular Weight: 22.7 kDa

Gene ID: 25707

NCBI Accession: [NM_013166](#), [NP_037298](#)

UniProt: [P20294](#)

Pathways: [JAK-STAT Signaling](#)

Application Details

Application Notes: Measured in a cell proliferation assay using TF1 human erythroleukemic cells [Kitamura T et al, J Cell Physiol 140, 1989]. The ED50 for this effect is typically 3 - 15 ng/mL.

Comment: Cytokines & Growth Factors

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Rat CNTF should be reconstituted in PBS to a concentration of 0.1 mg/mL. This solution can be diluted in water or other buffered solutions.

Handling

Buffer: 5 mM sodium acetate, pH 6.5

Storage: RT, -20 °C

Storage Comment: The lyophilized powder although stable at room temperature for 3 weeks, is best stored desiccated at -20°C. Reconstituted rat CNTF should be stored in working aliquots at -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).