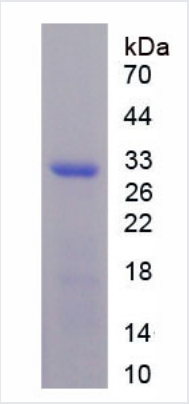
Ciliary Neurotrophic Factor (CNTF) Active Protein

PRODUCT OVERVIEW

Product Name	Ciliary Neurotrophic Factor (CNTF), Active Protein
Full Product Name	Active Ciliary Neurotrophic Factor (CNTF)
Product Gene Name	CNTF active protein
Product Synonym Names	Ciliary Neurotrophic Factor; CNTF active protein (prokaryotic), Human; HCNTF
Host	E coli
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose. Freeze-dried powder
Purity/Purification	Greater than 95% by SDS-PAGE
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months Stable for 12 months if correctly stored.
Molecular Weight	22,931 Da
Sequence Positions	Ala2~Met200
Chromosome Location	Chromosome: 11; NC_000011.9 (58390146..58393206). Location: 11q12.2
OMIM	118945
3D Structure	ModBase 3D Structure for P26441
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Expression System	Prokaryotic expression
Species	Human
Tag	N-terminal His
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6.3
Research Area	Cytokine
Product Categories/Family for CNTF active protein	Active proteins
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for CNTF active protein	Cell culture, Activity Assay
Related Product Information for CNTF active protein	MBS2153108 is an active protein targeting CNTF. Also known as Active Ciliary Neurotrophic Factor (CNTF). Host: E coli.
Other Notes	Small volumes of CNTF active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-PAGE of CNTF active protein
Figure. SDS-PAGE

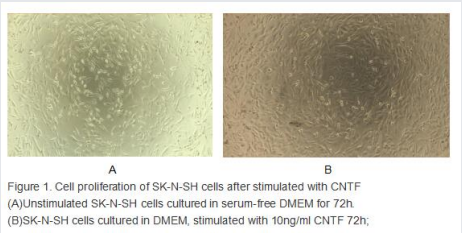


Figure 1. Cell proliferation of SK-N-SH cells after stimulated with CNTF
(A)Unstimulated SK-N-SH cells cultured in serum-free DMEM for 72h.
(B)SK-N-SH cells cultured in DMEM, stimulated with 10ng/ml CNTF 72h;

Activity of CNTF active protein
Ciliary Neurotrophic Factor (CNTF) is a common extracellular polypeptide hormone who has neuroprotective effects on a variety of central and also peripheral nervous system neurons. It promotes differentiation and maturation of oligodendrocyte precursor ce

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CNTF. It may not necessarily be applicable to this product.

NCBI GI #	4758020
NCBI GeneID	1270
NCBI Accession #	NP_000605.1
UniProt Primary Accession #	P26441
UniProt Secondary Accession #	B2RAB2
UniProt Related Accession #	P26441
GenBank Nucleotide #	NM_000614.3
NCBI Official Full Name	ciliary neurotrophic factor
NCBI Official Synonym Full Names	ciliary neurotrophic factor
NCBI Official Symbol	CNTF
NCBI Official Synonym Symbols	HCNTF
UniProt Protein Name	Ciliary neurotrophic factor
Protein Family	Ciliary neurotrophic factor
UniProt Gene Name	CNTF
UniProt Synonym Gene Names	CNTF
UniProt Entry Name	CNTF_HUMAN
NCBI Protein Information	ciliary neurotrophic factor
NCBI Summary for CNTF	The protein encoded by this gene is a polypeptide hormone whose actions appear to be restricted to the nervous system where it promotes neurotransmitter synthesis and neurite outgrowth in certain neuronal populations. The protein is a potent survival factor for neurons and oligodendrocytes and may be relevant in reducing tissue destruction during inflammatory attacks. A mutation in this gene, which results in aberrant splicing, leads to ciliary neurotrophic factor deficiency, but this phenotype is not causally related to neurologic disease. A read-through transcript variant composed of the upstream ZFP91 gene and CNTF sequence has been identified, but it is thought to be non-coding. Read-through transcription of ZFP91 and CNTF has also been observed in mouse. [provided by RefSeq, Oct 2010]

UniProt Comments for CNTF	CNTF: CNTF is a survival factor for various neuronal cell types. Seems to prevent the degeneration of motor axons after axotomy. Belongs to the CNTF family. Chromosomal Location of Human Ortholog: 11q12.2 Cellular Component: extracellular space; cytoplasm Molecular Function: interleukin-6 receptor binding; growth factor activity; ciliary neurotrophic factor receptor binding Biological Process: negative regulation of photoreceptor cell differentiation; positive regulation of cell proliferation; regulation of retinal cell programmed cell death; neuron development; negative regulation of neuron apoptosis; signal transduction; muscle morphogenesis; growth; positive regulation of tyrosine phosphorylation of Stat3 protein
Research Articles on CNTF	**1.** we show that the release of CNTF by glial cells is a very powerful stimulus for optic fiber regeneration and retinal ganglion cell survival after optic nerve crush
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