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## DATASHEET

### Recombinant human CNTF protein

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#### Product overview

<b>Name</b>	Recombinant human CNTF protein
<b>Cat No</b>	HB8968
<b>Biological description</b>	<p>The CNTF neural factor appears to act only on the nervous system and is thought to promote neurotransmitter synthesis and neurite outgrowth in some neuronal populations.</p> <p>It is potent survival factor for neurons and oligodendrocytes.</p> <p>CNTF is often used when differentiating hPSC-derived neural progenitor cells into astrocytes.</p>
<b>Species of origin</b>	human
<b>Alternative names</b>	Recombinant Human Ciliary Neurotrophic Factor, HCNTF, CNTF, Ciliary Neurotrophic Factor.
<b>Biological action</b>	Activator
<b>Purity</b>	>98%
<b>Description</b>	Potent neural factor

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#### Biological Data

<b>Application notes</b>	ED <sub>50</sub> = <2 ng/ml (determined by dose-dependent stimulation of TF-1 cells), corresponding to a specific activity of 500,000IU/mg.
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#### Solubility & Handling

<b>Storage instructions</b>	-20°C and avoid freeze thaw cycles
<b>Solubility overview</b>	To make a stock solution, reconstitute in sterile 18MΩcm water at a concentration > 100µg/ml, which can then be diluted to make a working solution
<b>Handling</b>	<ul style="list-style-type: none"><li>• Solutions should be made in sterile deionized water (not less than 100 µg/ml). This solution can then be further diluted with other aqueous solutions.</li><li>• Following reconstitution, solutions may be stored at 4°C and are useable for around 2-7 days and for future use store at -18°C.</li><li>• Freeze-thaw cycles should be prevented.</li></ul>
<b>Shipping Conditions Important</b>	Stable for <b>ambient temperature</b> shipping. Follow storage instructions on receipt. This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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#### Chemical Data

<b>UniProt ID</b>	P26441
<b>Molecular Weight</b>	22.7
<b>Source</b>	E. Coli.
<b>Appearance</b>	White lyophilized powder (sterile filtered & freeze-dried)
<b>Formulation</b>	Lyophilized from a concentrated (1mg/ml) solution in water containing 5mM sodium Phosphate buffer (pH 7.5) and 5mM sodium chloride

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#### References

### The ciliary neurotrophic factor and its receptor, CNTFR alpha

Sleeman MW *et al* (2000) *Pharm Acta Helv* 74(2-3)

**PubMedID** [10812968](#)

### Ciliary neurotrophic factor (CNTF) promotes skeletal muscle progenitor cell (MPC) viability via the phosphatidylinositol 3-kinase-Akt pathway

Hiatt K *et al* (2014) *J Tissue Eng Regen Med* 8(12)

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### Ciliary neurotrophic factor (CNTF): New facets of an old molecule for treating neurodegenerative and metabolic syndrome pathologies

Pasquin S *et al* (2015) *Cytokine Growth Factor Rev* 26(5)

**PubMedID** [26187860](#)

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