

## Neurotrophin-3 Protein, Human

Cat. No.:	HY-P70456
Synonyms:	Neurotrophin-3; NT-3; HDNF; Nerve Growth Factor 2; NGF-2; Neurotrophic Factor; NTF3
Species:	Human
Source:	E. coli
Accession:	P20783 (Y139-T257)
Gene ID:	4908
Molecular Weight:	Approximately 14.0 kDa

### PROPERTIES

AA Sequence	<p>Y A E H K S H R G E      Y S V C D S E S L W      V T D K S S A I D I      R G H Q V T V L G E</p> <p>I K T G N S P V K Q      Y F Y E T R C K E A      R P V K N G C R G I      D D K H W N S Q C K</p> <p>T S Q T Y V R A L T      S E N N K L V G W R      W I R I D T S C V C      A L S R K I G R T</p>
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 250 mM NaCl, pH 7.2.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer. It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>Neurotrophin-3 (NT-3), a trophic factor from the neurotrophin family, is widely expressed in the nervous system. The physiological actions of NT-3 are mediated by the activation of two membrane receptors: the low-affinity receptor p75 and the high-affinity receptor Trk. NT-3 activates the TrkC receptor and binds with less affinity to TrkB and TrkA. NT-3 reduces cellular damage, improves neuronal regeneration in different models of lesions or neurodegeneration, and participates in synaptic reorganization, synapse formation, and neuronal plasticity<sup>[1]</sup>.</p>
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### REFERENCES

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[1]. Koichi Uegaki, et al. BDNF Binds Its Pro-Peptide with High Affinity and the Common Val66 Met Polymorphism Attenuates the Interaction. Int J Mol Sci. 2017 May 12;18(5):1042.

[2]. O Blondel, et al. A glia-derived signal regulating neuronal differentiation. J Neurosci. 2000 Nov 1;20(21):8012-20.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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