

## Recombinant Human Neurotrophin-4

### Information

<b>Gene ID</b>	4909
<b>Accession #</b>	P34130
<b>Alternate Names</b>	Neurotrophin-5, NT-5
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 28.1 kDa, a noncovalently linked homodimer of two 14.0 kDa polypeptide monomers (262 total amino acid residues).
<b>AA Sequence</b>	MGVSETAPAS RRGELAVCDA VSGWVTD RRT AVDLRGREVE VLGEVPAAGG SPLRQYFFET RCKADNAEEG GPGAGGGGCR GVDRRHWWSE CKAKQSYVRA LTADAQGRVG WRWIRIDTAC VCTLLSRTGR A
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 5.5.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by the dose-dependent induction of choline acetyl transferase activity in rat basal forebrain primary septal cell cultures is less than 50 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>4</sup> IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10μg	100μg	500μg
Recombinant Human Neurotrophin-4	10μg	100μg	500μg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles

- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ $\mu$ g of rHuNT-4 as determined by LAL method.

## Description

NT-4 也称为 NT-5, 是一种神经元和上皮生长因子, 属于 NGF- $\beta$  家族。NT-4 前体由 24 a.a. 信号肽、56 a.a. 和 130 a.a. NT-4 组成。成熟蛋白有六个Cys氨基酸残基, 与NT-3、BDNF具有相对结构(共享约48%-52%的序列同一性)。此外, 它与小鼠和大鼠 NT-4 共享 91% 和 95% 的 a.a. 序列同一性。NT-4 主要在前列腺中表达, 胸腺、胎盘和骨骼肌水平较低。它可以与LNGFR和trkB受体结合, 在调节生存和维持周围感觉交感神经元中起着至关重要的作用。NT-4 缺陷可能导致原发性 1O 型开角型青光眼。

## Reference

1. Gao WQ, Zheng JL, Karihaloo M. 1995. J Neurosci, 15: 2656-67
2. Ogborn D and Gardiner PF. 2010. Muscle Nerve, 41: 385-91
3. Peinado-Ramon P, Salvador M, Villegas-Perez MP, et al. 1996. Invest Ophthalmol Vis Sci, 37: 489-500
4. Yuen EC and Mobley WC. 1999. Exp Neurol, 159: 297-308
5. Sakuma K, Watanabe K, Sano M, et al. 2001. Brain Res, 907: 1-19.

**APExBIO Technology**

**[www.apexbt.com](http://www.apexbt.com)**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)

