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## Product Data Sheet

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Product Name: NT 4 Human  
 Cat. No.: GP20783  
 Batch No.: 1

### Product Data

|                     |  |                    |                       |
|---------------------|--|--------------------|-----------------------|
| Purity              | >98%   | Source             | Escherichia Coli.     |
| Physical Appearance | solid  | Shipping Condition | Shipped at Room temp. |
| Synonyms            | NT4; NT5; NTF5; NT-4/5; NTF4; Neurotrophin-4; Neutrophic factor 4; Neurotrophin-5; NT-5.   |                    |                       |
| Amino Acid Sequence | GVSETAPASR RGELAVCDAV SGWVTDRRTA VDLRGREVEV LGEVPAAGGS<br>PLRQYFFETR CKADNAEEGG PGAGGGGCRG VDRRHVVSEC KAKQSYVRAL<br>TADAQGRVGV RWIRIDTACV CTLLSRTGRA.                            |                    |                       |
| Solubility          | It is recommended to reconstitute the lyophilized NT-4 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions. |                    |                       |
| Formulation         | Lyophilized from a concentrated (1mg/ml) solution in water containing 20mM phosphate buffer pH-7.4 and 150mM NaCl.   |                    |                       |

### Introduction

NT-4 is part of the family of neurotrophic factors, neurotrophins, that are in charge for the survival and differentiation of mammalian neurons. NT-4 expression is dominant and less influenced by environmental signals. NT-4 deficient mice shows slight cellular deficits and develop normally to adulthood. NT-4 is a target-derived survival factor for peripheral sensory sympathetic neurons. NT-4 is involved in the proliferation and differentiation of periodontal ligament cells.

### Biological Activity

Determined by the dose-dependent induction of choline acetyl transferase activity in rat basal forebrain primary septal cell cultures was found to be in the range of 20-50 ng/ml.

### Stability

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

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Lyophilized NT-4 although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution NT-4 should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

Neurotrophin-4 Human Recombinant produced in E.Coli is a noncovalently linked homodimer, non-glycosylated polypeptide chain containing 2 x 130 amino acids (81-210 amino acids) and having a total molecular mass of 28 kDa. The NT-4 is purified by proprietary chromatographic techniques.

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