

## Recombinant Human Neurotrophin-4 (rh NT-4)

**Synonyms:** NT5, NTF5, NT-4/5, NTF4, Neurotrophic factor 4, Neurotrophin-5, NT-5.

**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

**Description:** Recombinant Human NT-4 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.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a concentrated (1mg/ml) solution in water containing 20mM phosphate buffer pH-7.4 and 150mM NaCl. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery.

**Solubility:** It is recommended to reconstitute the lyophilized rh NT-4 in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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

**Purity:** Greater than 97.0% as determined by RP-HPLC and by SDS-PAGE.

**Amino Acid Sequence:** GVSETAPASR RGELAVCDAV SGWVTDRTA VDLRGREVEV LGEVPAAGGS  
PLRQYFFETR CKADNAEEGG PGAGGGGCRG VDRRHVVSEC KAKQSYVRAL TADAQGRVGV  
WIRIDTACV CTLLSRTGRA

**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.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11344432
<i>medium</i>	10 µg	Cat.N°	11344433

**ImmunoTools** Excellent Quality - Advantageously priced

Gladiolenweg 2; 26169 Friesoythe; Germany  
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, [info@immunotools.com](mailto:info@immunotools.com)  
[www.immunotools.com](http://www.immunotools.com)