

## Neurotrophin-4, Human Recombinant

CATALOG NUMBER: CNT-626-010P, 10 µg

**Synonyms** NT4, NT5, NTF5, NT-4/5, NTF4, Neurotrophin-4, 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** 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.

**Source** *Escherichia coli*

**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.

**Amino Acid Sequence** GVSETAPASR RGE LAVCD AV SGWVTDRRTA VDLRGREVEV LGEVPAAGGS  
PLRQYFFETR CKADNAEEGG PGAGGGGCRG VDRRHVVSEC KAKQSYVRAL  
TADAQGRVWG RWIRIDTACV CTLLSRTGRA

**Formulation** Lyophilized from a concentrated (1mg/ml) solution in water containing 20mM phosphate buffer pH-7.4 and 150mM NaCl.

**Storage** Although lyophilized NT-4 is stable at room temperature for 3 weeks, it should be stored desiccated below -18°C.

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

Upon reconstitution, NT-4 should be stored at 4°C between 2-7 days and below -18°C for future use.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity**

> 97% pure by SDS-PAGE and RP-HPLC.