

Recombinant Human Neurotrophin-4 (rHuNT-4)

PrimeGene Technical Data Sheet

Catalog Number: 107-04

Source: Escherichia coli.

Molecular Weight: Approximately 28.1 kDa, a noncovalently linked homodimer of two 14.0 kDa polypeptide monomers

(262 total amino acid residues).

Quantity: $2\mu g/10\mu g/1000\mu g$

AA Sequence: MGVSETAPAS RRGELAVCDA VSGWVTDRRT AVDLRGREVE VLGEVPAAGG

SPLRQYFFET RCKADNAEEG GPGAGGGGCR GVDRRHWVSE CKAKQSYVRA

LTADAQGRVG WRWIRIDTAC VCTLLSRTGR A

Purity: > 97 % by SDS-PAGE and HPLC analyses.

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ 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 $> 2.0 \times 10^4$ IU/mg.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 5.5.

Endotoxin: Less than 1 EU/μg of rHuNT-4 as determined by LAL method.

Reconstitution: 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 \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage: 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.

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. **NOT FOR HUMAN USE**.

Human Neurotropin-4

NT-4 also named as NT-5 is a neuronal and epithelial grow factor belongs to the NGF-beta family. The NT-4 precursor is consisted of a 24 a.a. signal peptide, a 56 a.a. propertied and 130 a.a. NT-4. The mature protein has six Cys amino acid residues and has the relative structure with NT-3, BDNF (sharing about 48 % - 52 % sequence identity). Additionally, it shares 91 % and 95 % a.a. sequence identity with mouse and rat NT-4. NT-4 is mainly expressed in prostate and has low level thymus, placenta, and skeletal muscle. It can binding with the LNGFR and trkB receptors and plays a crucial role in the regulation of survival and the maintenance of peripheral sensory sympathetic neurons. Defect of NT-4 may cause primary open angle glaucoma type 10.

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