

Recombinant Human Neurotrophin-4

#R00161

Size: 10 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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 1O.

AA Sequence

MGVSETAPASRRGELAVCDVSGWVTDRRTAVDLRG
REVEVLGEVPAAGGSPLRQYFFETRCKADNAEEGGP

GAGGGGCGRGVDRRHVVSECKAKQSYVRLTADAQ
GRVGWRWIRIDTACVCTLLSRTGRA

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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Neurotrophin-5, NT-5
Accession	P34130
GeneID	4909
Species	Human
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).
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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 μ m filtered concentrated solution in PBS, pH 5.5.
Endotoxin	Less than 1 EU/ μ g of rHuNT-4 as determined by LAL method.
