

Active Recombinant Human NTF4 Protein (260 aa)

Cat. No. NTF4-067N Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human NTF4 Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	260
Description	<p>Neurotrophin-4 (NT-4), also known as NT-5, is a member of the NGF family of neuronal and epithelial growth factors. Neurotrophins have six conserved cysteine residues that are involved in the formation of three disulfide bonds. Human NT-4 shares 48 - 52% aa sequence identity with human beta-NGF, BDNF, and NT-3. It shares 91% and 95% aa sequence identity with mouse and rat NT-4/5, respectively. The mature protein is secreted as a homodimer and can also form heterodimers with BDNF or NT-3. NT-4 binds and induces receptor dimerization and activation of TrkB. NT-4 promotes the development and survival of selected peripheral and CNS neurons. NT-4 induced TrkB signaling augments NMDA receptor activity and increases neuronal sensitivity to excitotoxic cell death. It also promotes the proliferation of keratinocytes and accelerates hair follicle regression during the follicular cycle. NT-4 is secreted by activated T cells and granulocytes at sites of inflammation where it contributes to tissue regeneration.</p>
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	Fully biologically active when compared to standard. Determined by the dose-

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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, corresponding to a Specific Activity of 2×10^4 IU/mg.

Molecular Mass

28 kDa, a noncovalently linked homodimer of two 14.0 kDa polypeptide monomers (260 total amino acid residues).

AA Sequence

GVSETAPASRRGELAVCDVSGWVTDRRTAVDLRGREVEVLGEVPAAGGSPLRQY
FFETRCKADNAEEGGPGAGGGGCRGVDRRHVVSECKAKQSYVRALTADAQGRV
GWRWIRIDTACVCTLLSRTGRA

Endotoxin

Less than 1 EU/ μ g of rHuNT-4 as determined by LAL method.

Purity

>97% by SDS-PAGE and HPLC analyses.

Storage

This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles.

Storage Buffer

Lyophilized from a 0.2 μ m filtered concentrated solution in 20mM PB, pH 7.4, 150mM NaCl.

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

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GENE INFORMATION

Gene Name	NTF4 neurotrophin 4 [Homo sapiens (human)]
Official Symbol	NTF4
Synonyms	NTF4; neurotrophin 4; NT4; NT5; NT-4; NT-5; NTF5; GLC10; GLC10; NT-4/5; neurotrophin-4neurotrophic factor 4neurotrophic factor 5neurotrophin 5 (neurotrophin 4/5)neurotrophin-5neutrophic factor 4
Gene ID	4909
mRNA Refseq	NM_006179
Protein Refseq	NP_006170
MIM	162662
UniProt ID	P34130

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