

Recombinant Human 3 -Nucleotidase

Cat. No. NTF3-128H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Neurotrophin-3 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 119 amino acids and having a molecular mass of 13606.29 Dalton. The NTF 3 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Description	NTF3 a member of the neurotrophin family, that controls survival and differentiation of mammalian neurons. This protein is closely related to both nerve growth factor and brain-derived neurotrophic factor. It may be involved in the maintenance of the adult nervous system, and may affect development of neurons in the embryo when it is expressed in human placenta. NTF3-deficient mice generated by gene targeting display severe movement defects of the limbs.
Amino acid sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Tyr-Ala-Glu-His-Lys.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability	Samples are stable for up to twelve months from date of receipt at -70°C.
Purity	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	Lyophilized from a concentrated (1 mg/ml) solution in water containing no additives.
Solubility	It is recommended to reconstitute the lyophilized Neurotrophin-3 in sterile 18 MΩ-cm H ₂ O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Specific Activity	The ED ₅₀ as determined by the dose-dependant induction of choline acetyl transferase in rat basal forebrain primary septal culture was found between 20-50 ng/ml.
Protein content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 2.165 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of NT-3 as a Reference Standard.

GENE INFORMATION

Gene Name	NTF3 neurotrophin 3 [Homo sapiens]
Official Symbol	NTF3
Synonyms	NTF3; neurotrophin 3; NT3; HDNF; NGF2; NGF-2; MGC129711; NT-3; Nerve growth factor 2; Neurotrophic factor
Gene ID	4908
mRNA Refseq	NM_001102654
Protein Refseq	NP_001096124

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MIM	162660
UniProt ID	P20783
Chromosome Location	12p13
Pathway	MAPK signaling pathway; Neurotrophic factor-mediated Trk receptor signaling; Neurotrophin signaling pathway; Trk receptor signaling mediated by the MAPK pathway; p75(NTR)-mediated signaling
Function	growth factor activity; nerve growth factor binding; neurotrophin receptor binding; receptor binding
PDB rendering based on 1b8k.	