

Active Recombinant Mouse Neurotrophin 3

Cat. No. Ntf3-018M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Neurotrophin-3 Mouse Recombinant 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 NT-3 is purified by proprietary chromatographic techniques.
Species	Mouse
Source	Mouse
Description	NT3 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.
Form	Lyophilized from 0.02% TFA.
Purity	Greater than 97.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Bio-activity	The ED50 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.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.

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Solubility	It is recommended to reconstitute the lyophilized Neurotrophin-3 in sterile 18M μ -cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
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.
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.
Storage	Lyophilized NGF2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution NGF-2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Pathways	Cell death signalling via NRAGE; MAPK signaling pathway; NGF processing; NRAGE signals death through JNK; Neurotrophin signaling pathway; Signalling by NGF; p75 NTR receptor-mediated signalling

GENE INFORMATION

Gene Name	Ntf3 neurotrophin 3 [<i>Mus musculus</i>]
Official Symbol	Ntf3
Synonyms	Ntf3; neurotrophin 3; Nt3; Ntf-3; AI316846; AI835689; NGF-2; NGF2; NT-3; Nerve growth factor 2; MGC129711; Neurotrophic factor3; NT3; HDNF; neurotrophin-3

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Gene ID	18205
mRNA Refseq	NM_001164034
Protein Refseq	NP_001157506
UniProt ID	P20181
Chromosome Location	6 F3; 6 61.0 cM. Chromosome: 6; NC_000072.5 (126051430..126116762, complement) See Ntf3 in MapViewer
Function	growth factor activity; nerve growth factor binding; neurotrophin p75 receptor binding; neurotrophin receptor binding; protein binding; receptor binding
PDB rendering based on 1b8k.	