

Recombinant Human Neurotrophin 3

Cat. No. NTF3-22H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Neurotrophin 3 encoding the NT-3 prepropeptide was inserted into a baculovirus expression vector and expressed in Sf 21 insect cells.
Species	Human
Source	Sf21 Cells
Description	Neurotrophin 3 (NT-3), also known as NTF3 is a basic protein found in neurons of the central nervous system. NT-3 selectively supports the survival of neuronal cell populations. It rapidly potentiates the spontaneous and impulse-evoked synaptic activity of developing neuromuscular synapses in culture and thus appears to be involved in the regulation of functions of developing synapses. NT-3 negatively modulates nerve growth factor (NGF) receptor expression and associated nociceptive phenotype in intact neurons, suggesting a beneficial role in treating aspects of neuropathic pain mediated by NGF. NT-3 is effective at suppressing thermal hyperalgesia associated with chronic constriction injury (CCI).
Molecular Weight	The predicted molecular weight of Recombinant Human NT-3 is Mr 13.6 kDa.
State Of Matter	Lyophilized.
Purity	>97% by SDS Page and analyzed by silver stain.
Endotoxin	<1.0 EU/g as determined by the LAL method.

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Biological Activity The biological activity of Human NT-3 was determined by its ability to stimulate proliferation of the TrkB-transfected cell line, BaF-TrkB-BD. The expected ED50 for this effect is typically 10 - 30 ng/mL.

Storage And Stability This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name NTF3 neurotrophin 3 [Homo sapiens]

Synonyms NTF3; neurotrophin 3; HDNF; NGF2; NGF-2; MGC129711; NT3; NT-3; Nerve growth factor 2; Neurotrophic factor

Gene ID 4908

mRNA Refseq NM_001102654

Protein Refseq NP_001096124

MIM 162660

UniProt ID P20783

Chromosome Location 12p13

Pathway Neurotrophin signaling pathway; MAPK signaling pathway

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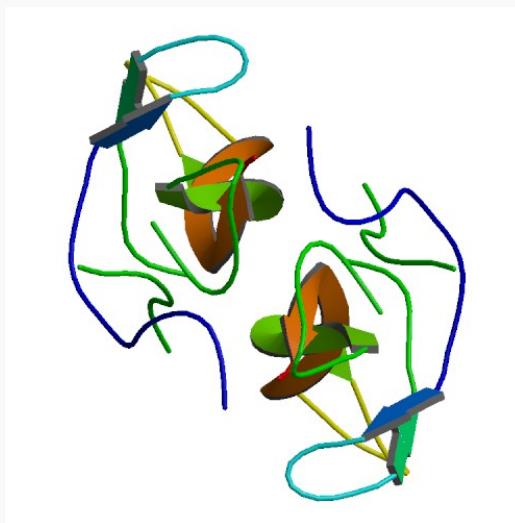
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Function

growth factor activity; nerve growth factor binding; neurotrophin receptor binding

PDB rendering based
on 1b8k.



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