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# Product Information

**Neurotrophin-4 human**
**recombinant, expressed in *Sf*21 insect cells**

Catalog Number **N1780**
Storage Temperature –20 °C

Synonyms: NT-4, NTF4

## Product Description

Neurotrophin-4 (NT-4) is a neurotrophic factor that supports the survival and outgrowth of sensory neurons from embryonic chicken dorsal root ganglia.[1] NT-4 was originally identified in *Xenopus* and subsequently identified in rat and humans.[2] Mammalian neurotrophin-4 has also been called NT-5 and NT4/5 to distinguish it from *Xenopus* NT-4.[2] Mature human and rat NT-4 amino acid sequences are 95% identical and both are active on neurites from chicken embryo dorsal root ganglia.

NT-4 is a 14 kDa member of the neurotrophin family, which is expressed in many tissues and major brain regions. NT-4 promotes survival and differentiation of various cells in culture including spinal neuons, basal forebrain cholinergic neurons, hippocampal neurons, cerebellar granule cells, embryonic dopaminergic neruons of mesencephalon, noradrenergic neurons of the locus coeruleus, dopaminergic, GABAergic, and serotoninergic neurons of the substantia nigra, and embryonic trigeminal and jugular neurons.

The product is lyophilized from a 0.2 μm filtered solution of 30% acetonitrile and 0.1% TFA, containing 50 μg bovine serum albumin per 1 μg of cytokine.

Purity: >97% (SDS-PAGE)

The biological activity of recombinant human NT-4 is measured in a cell proliferation assay using a TrkB-transfected cell line, BaF-TrkB-BD.

The $ED_{50}$ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Preparation Instructions

Reconstitute the contents of the vial using 0.2 μm filtered phosphate buffered saline containing 0.1% bovine serum albumin or human serum albumin. Prepare a stock solution of ≥50 μg/mL.

## Storage/Stability

Prior to reconstitution, store at –20 °C.

Reconstituted product may be stored at 2–8 °C for a maximum of one month. For prolonged storage, freeze in working aliquots at –20 °C. Avoid repeated freezing and thawing.

## References

1. Ip, N. et al., Proc. Natl. Acad. Sci. USA. **89**, 3060 (1992).
2. Callard, R. et al., The Cytokine Facts Book, Academic Press (London, UK: 1994) 199.

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