

## Recombinant Human NT-3 (Neurotrophin-3)

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### Product Description

NT-3 is a neurotrophic factor structurally related to  $\beta$ -NGF, BDNF, and NT-4. These proteins belong to the cysteine-knot family of growth factors that assume stable dimeric structures. NT-3 is expressed by neurons of the central nervous systems, and can signal through the trk receptors. NT-3 promotes the growth and survival of nerve and glial cells. The amino acid sequences of human, murine and rat NT-3 are identical. Recombinant Human NT-3 is a noncovalently linked homodimer of two 13.6 kDa polypeptide monomers (240 total amino acid residues).

### Typical Specifications

<b>Species</b>	Human
<b>Expression</b>	E. Coli Cell Expressed
<b>Activity</b>	Typically 20-50 ng/ml ED <sub>50</sub>
<b>Purity</b>	≥98%
<b>Endotoxin</b>	<1.0 EU/ $\mu$ g
<b>Molecular Mass</b>	13.6 kDa
<b>Country of Origin</b>	USA

### Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

### Activity Assay

The ED<sub>50</sub> as determined by the dose-dependent induction of choline acetyl transferase activity in rat basal forebrain primary septal cell cultures was found in the range of 20-50 ng/ml.

### AA Sequence

MYAEHKSHRG	EYSVCDSESL	WVTDKSSAID
IRGHQVTVLG	EIKTGNPVK	QYFYETRCKE
ARPVKNGCRG	IDDKHWNSQC	KTSQTYVRAL
TSENNKLVGW	RWIRIDTSCV	CALSRKIGRT

### Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

### Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

#### Limited Use and Restrictions

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