

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant NT-4, Human

Catalog Number: BK0144-50µg

Source: Escherichia coli.

Quantity: 50µg

### Description:

Neurotrophin-4 (NT-4), also known as NT-5, is a neurotrophic factor structurally related to  $\beta$ -NGF, BDNF, and NT-3. Human NT-4 shares 48 - 52% aa sequence identity with human  $\beta$ -NGF, BDNF, and NT-3. Neurotrophins have six conserved cysteine residues that are involved in the formation of three disulfide bonds. NT-4 is expressed highest levels in prostate, lower levels in thymus, placenta, and skeletal muscle. NT-4 binds and induces receptor dimerization and activation of TrkB. NT-4 can signal through TrkB receptors and promotes the survival of peripheral sensory sympathetic neurons. Recombinant human Neurotrophin-4 (rhNT-4) produced in E.coli is a noncovalently linked homodimer containing two non-glycosylated polypeptide chains of 131 amino acids. A fully biologically active molecule, rhNT-4 has a molecular mass of 28.1kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

28.1 kDa, a noncovalently linked homodimer, of two 14.0 kDa polypeptide monomers.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

ED50 < 5.0 µg/ml, measured by a cell proliferation assay using C6 cells, corresponding to a specific activity of > 2.0 × 10<sup>2</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against 50mM acetic acid.

### AA Sequence:

MGVSETAPASRRGELAVCDVSGWVTDRRTAV-DLRGREVEVLGEVPAAGGSPLRQYFFETRCK-ADNAEEGG-PGAGGGGCRGVDRRHVWVSECKAKQSYVRAL-TADAQGRVGRWIRIDTACVCTLLSRTGRA

### Endotoxin:

< 0.3 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in 50mM acetic acid or ddH<sub>2</sub>O at 50 µg/ml.

### Storage:

Lyophilized recombinant human Neurotrophin-4 (rhNT-4) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhNT-4 should be stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

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