

DATASHEET
Version 20181206**NT-4, Human****Cat. No.:** Z03000-50**Size:** 50.0 ug**Synonyms:** Neurotrophin-4, Neurotrophic 4/5 (NT-4/NT-5)**Description:**

Neurotrophin-4 (NT-4), also known as NT-5, is a neurotrophic factor structurally related to β -NGF, BDNF, and NT-3. Human NT-4 shares 48 - 52% aa sequence identity with human β -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.

Amino Acid Sequence:

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00001  MGVSETAPAS  RRGELAVCDA  VSGWVTD RRT  AVDLRGREVE
00041  VLGEVPAAGG  SPLRQYFFET  RCKADNAEEG  GPGAGGGGCR
00081  GVDRRHVVSE  CKAKQSYVRA  LTADAQGRVG  WRWIRIDTAC
00121  VCTLLSRTGR  A
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Source: *E. coli***Species:** Human**Biological Activity:** $ED_{50} < 5.0 \mu\text{g/ml}$, measured by a cell proliferation assay using C6 cells, corresponding to a specific activity of $> 2.0 \times 10^2$ units/mg.**Molecular Weight:** 28.1 kDa, a noncovalently linked homodimer, of two 14.0 kDa polypeptide monomers.**Formulation:** Lyophilized after extensive dialysis against 50mM acetic acid.**Reconstitution:** Reconstituted in 50mM acetic acid or ddH₂O at 50 $\mu\text{g/ml}$.**Purity:** $> 95\%$ by SDS-PAGE and HPLC analyses.**Endotoxin Level:** $< 0.3 \text{ EU}/\mu\text{g}$, determined by LAL method.**Storage:** Lyophilized recombinant human Neurotrophin-4 (rhNT-4) remains stable up to 6 months at lower than -70°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 .