

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant NT-4, Mouse

Catalog Number: BK0145-10 μ g

Source: Escherichia coli.

Quantity: 10 μ g

Description:

Neurotrophin-4 (NT-4) is a small secreted cytokine, and belongs to the Neurotrophin (NT) family, which also includes Brain Derived Neurotrophic Factor (BDNF), Nerve Growth Factor (NGF), and NT-3. NT family members are all derived from similar sized protein precursors, composed of N-terminal propeptides and C-terminal mature domains, which are separated by posttranslational proteolytic cleavage. NT-4 (along with NT-3) is found in the brains of mammals. In vivo, NT-4 binds to the common receptor, p75^{NTR}, and a tyrosine kinase receptor, TrkB. The heterotrimeric complex activates the NF κ B transcription factor. NT-4 is essential for the differentiation and wiring regulation of the central and peripheral nervous systems during development, and is related to important diseases including Alzheimer's. Recombinant mouse Neurotrophin-4 (rmNT-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, rmNT-4 has a molecular mass of 14.0 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Molecular Weight:

14.0 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE analysis.

Biological Activity:

ED₅₀ < 1 μ g/mL, measured by a cell proliferation assay using C6 cells, corresponding to a specific activity of > 1 $\times 10^3$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against 50mM acetic acid.

AA Sequence:

MGVSETAPASRRGELAVCDVSGWVTDRRTAV-
DLRGREVEVLGEVPAAGGSPLRQYF-
FETRCKAESAGEGG-
PGVGGGGCRGVDRRHVLSECKAKQSYVRAL-
TADSQGRVGRWIRIDTACVCTLLSRTGRA

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in 50mM acetic acid or ddH₂O at 100 μ g/mL.

Storage:

Lyophilized recombinant mouse Neurotrophin-4 (rmNT-4) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rmNT-4 remains stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

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