DATASHEET
Version 20181206

NT-4, Mouse

Cat. No.: Z03180-1

Size: 1.0 mg

Synonyms: Neurotrophin-4, Neurotrophic 4/5 (NT-4/NT-5)

Description:

Neurotrophin-4 (NT-4) is a small secreted cytokine, and belongs to the Neurotrophin (NT) family, which also includes Brain Derived Neurotropic 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 foundin 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 NFκB 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 chainsof 131 amino acids. A fully biologically active molecule, rmNT-4 has a molecular mass of 14.0kDa-analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MGVSETAPAS RRGELAVCDA VSGWVTDRRT AVDLRGREVE
00041 VLGEVPAAGG SPLRQYFFET RCKAESAGEG GPGVGGGGCR
00081 GVDRRHWLSE CKAKQSYVRA LTADSQGRVG WRWIRIDTAC
00121 VCTLLSRTGR A
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Source: *E. coli*

Species: Mouse

Biological Activity: ED_{50} <1μg/mL, measured by a cell proliferation assay usingC6cells, corresponding to a specific activity of>1× 10^3 units/mg.

Molecular Weight: 14.0 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against 50mM acetic acid.

Reconstitution: Reconstituted in 50mM acetic acid or ddH_2O at 100 μg/mL.

Purity: > 95% by SDS-PAGEanalysis.

Endotoxin Level: < 0.2 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant mouse Neurotrophin-4 (rmNT-4) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmNT-4 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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