

TECHNICAL DATA SHEET

# Recombinant Human NT-3 (Carrier-free)

Catalog Number: 21-7077

**RPx-Pro™ Recombinant Protein**  
PRODUCT INFORMATION

**CONTENTS**

Recombinant Human NT-3 (Carrier-free)

**DESCRIPTION**

NT-3 (Neurotrophin-3) is a member of the NGF family of neurotrophins that is comprised of at least four proteins including NGF, BDNF, NT-3, and NT-4/5. NT-3 is a secreted protein that primarily activates the TrkC tyrosine kinase receptor, but under various conditions it can also associate with the Trk and TrkB kinase receptors, and the NGF receptor. Neurotrophins are critical to the development of the central and peripheral nervous system and they play important roles in injury induced neuron regeneration. NT-3 is expressed mainly by neurons and promotes the growth and survival of nerve and glial cells.

**MOLECULAR MASS**

Recombinant human NT-3 is a noncovalently linked homodimer, of two 13.6 kDa polypeptide monomers (240 total amino acid residues).

**AMINO ACID SEQUENCE**

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

**SOURCE**

E. coli

**APPLICATIONS**

Bioassay

**PURITY**

98 %

**STORAGE**

-20°C

**PROTEIN CONTENT**

Content Verified by UV Spectroscopy and/or SDS-PAGE

**ENDOTOXIN LEVEL**

Endotoxin level is <0.1 ng/μg of protein (<1 EU/μg).

**AUTHENTICITY**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**CROSS REACTIVITY**

Chicken, Cow, Dog, Frog, Hamster, Mouse, Pig, Rat

**BIOACTIVITY**

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 to be in the range of 20-50 ng/ml.

**RESEARCH AREAS**

Neurobiology; Stem Cells & Differentiation

**RECONSTITUTION**

See Certificate of Analysis (COA) for lot specific reconstitution information.

**REFERENCES**

Snider WD. 1994. Cell. 77: 627-638. Chalazonitis A. 1996. Mol Neurobiol. 12(1): 39-53. Barbacid M. 1994. J Neurobiol. 25(11): 1386-1403.

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