HUMANZYME

PRODUCT DATA SHEET
A XKine™ Product

Recombinant Human NT-4 (Neurotrophin-4)

Product Description

NT-4 is a neurotrophic factor structurally related to β-NGF, BDNF, and NT-3. These proteins belong to the cysteine-knot family of growth factors that assume stable dimeric structures. NT-4 is expressed in the prostate, thymus, placenta, and skeletal muscle. NT-4 can signal through the LNGFR and trkB receptors, and promotes the survival of peripheral sensory sympathetic neurons. Recombinant Human NT-4 is a noncovalently linked homodimer of two 14.0 kDa polypeptide monomers (260 total amino acid residues).

Typical Specifications

Species	Human
Expression	E. Coli Cell Expressed
Activity	Typically 20-50 ng/ml ED_{50}
Purity	≥98%
Endotoxin	<1.0 EU/μg
Molecular Mass	14 kDa
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

The ED_{50} as determined by the dose-dependent induction of choline acetyl transferase activity in rat basal forebrain primary septal cell cultures was found in the range of 20-50 ng/ml.

AA Sequence

GVSETAPASR RGELAVCDAV SGWVTDRRTA
VDLRGREVEV LGEVPAAGGS PLRQYFFETR
CKADNAEEGG PGAGGGGCRG VDRRHWVSEC
KAKQSYVRAL TADAQGRVGW RWIRIDTACV
CTLLSRTGRA

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

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