Human Neurotrophin (NT-3) Recombinant Protein

Catalog Number: 14-8939
Also known as: Neurotrphin-3

Product Information

Contents: Human Neurotrophin (NT-3) Recombinant Protein
Catalog Number: 14-8939
Concentration: 0.1 mg/mL
Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile environment.
Source: E. coli expressed, amino acids Tyr139-Thr257, accession number P20783
Molecular Mass: 31.8 kDa
Purity: > 97%, as determined by SDS-PAGE
Endotoxin: Less than 0.1 ng/ug cytokine as determined by the LAL assay.
Bioactivity: The ED50 of this protein, as measured by induction of choline acetyl transferase in rat basal forebrain cultures, is 20-50 ng/mL. This corresponds to a specific activity of 5 x 10^4 - 2 x 10^5 Units/mg.

Formulation: Sterile liquid; phosphate buffered saline, 1% BSA, pH 7.2. 0.22 um filtered.
Temperature Limitation: Store at less than or equal to -70°C.
Batch Code: Refer to vial
Use By: Refer to vial

Description

Neurotrophin-3 (NT-3) is a member of the neurotrophic growth factor family that also includes NGF, NT-4/5, and BDNF. These factors are important for the development and survival of neurons in the central and peripheral nervous system, and each family member targets different, but partially overlapping, subsets of neurons. NT-3 is responsible for the survival of proprioceptive and mechanoreceptive sensory neurons, and is expressed primarily by skeletal muscle and the central nervous system. It preferentially activates the TrkC receptor, but can also react with the receptors for the other members of the family, TrkA and TrkB, as well as with the lower-affinity p75 receptor. Binding of NT-3 to TrkC transmits a survival signal to the target cell, while in the absence of NT-3, TrkC signaling results in apoptosis.

Applications Reported

Human Neurotrophin-3 (NT-3) Recombinant Protein is biologically active.

Applications Tested

The ED50 of this protein, as measured by induction of choline acetyl transferase in rat basal forebrain cultures, is 20-50 ng/ml. This corresponds to a specific activity of 5 x 10^4 - 2 x 10^5 Units/mg.

References


Related Products

14-8365 Human BDNF (brain-derived neurotrophic factor) Recombinant Protein