CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS

Human Neurotrophic Factor-3

SIZE	CAT. NO.
10 ug	RP1099-10
100 ug	RP1099-100
1000 ug	RP1099-1000

BACKGROUND

Neurotrophin-3 (NT-3) is an important member of the nerve growth factor (NGF) family of proteins behind BDNF and NGF. It is thought to promote the survival or differentiation of existing and new neurons in the central nervous system and synapses. These functions are thought to be communicated by TrkC, a receptor tryrosine kinase thought induce NT-3-specific signaling. In addition, NT-3 is thought to also bind TrkB and low affinity nerve growth factor receptor (LNGFR).

Recombinant human NT-3 is a non-glycosylated, non-covalently linked homodimer. It contains two 119 amino acids proteins with a total molecular mass of 27.2 kDa.

Alternative Names:
Neurotophin 3, Nerve growth factor 2 (NGF-2), HGNF, NT3

Amino Acid Sequence:
YAEHKSHRGE YSVCDSESLW VTDKSSAIDI RGHQVTVLGE
IKTGNSPVKQ YFYETRCKEA RPVKNGCRGI DDKHWNSQCK
TSQTYVRALT SENNKLVGWR WIRIDTSCVC ALSRKIGRT

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
Recombinant human NT-3 is lyophilized from 0.02% TFA.

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is determined by the dose-dependent proliferation of BaF3 cells transfected with the TrkB receptor and is typically in the range of 1-10 ng/mL.