

**BACKGROUND:**

Nerve Growth Factor (NGF-β) is a neurotrophic factor related to BDNF, NT-3 and NT-4. NGF-β acts through its receptor β-NGFR, and is involved in the development and maintenance of the sensory and sympathetic nervous systems. NGF-β also is also involved in the growth, differentiation and survival of B lymphocytes. Human, mouse and rat proteins show cross-reactivity.

Recombinant human NGF-β is a non-covalently linked homodimer, consisting of two 121 amino acids, with a total molecular weight of 27.2 kDa.

**Cat. No.:**  
RP1038AF

**Alternate Names:**  
β-NGF

**AA Sequence:**

MSSSHPIFHRG	EFSVCDSVSV	WVGDKTTATD
IKGKEVMVLG	EVNINNSVFK	QYFFETKCRD
PNPVDSGCRG	IDSKHWNSYC	TTHTFVKAL
TMDGKQAAWR	FIRIDTACVC	VLSRKAVRRA

**TECHNICAL INFO**

**Source:**  
*E. coli*

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

**Formulation:**  
0.1% Trifluoroacetic Acid (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 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 measured by dose-dependent T11 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 5 ng/mL.

**Animal Component-Free**  
This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

