



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human beta Nerve Growth Factor

Catalog No.
228-10115

Source
Escherichia coli

Synonyms:

Beta Polypeptide, NGF, NGFB, HSAN5, Beta-NGF, MGC161426, MGC161428.

Introduction:

NGF-beta has nerve growth stimulating activity and the complex is involved in the regulation of growth and the differentiation of sympathetic and certain sensory neurons. Mutations in this gene have been associated with hereditary sensory and autonomic neuropathy, type 5 (HSAN5), and dysregulation of this gene's expression is associated with allergic rhinitis.

Description:

Nerve Growth Factor-beta Human Recombinant produced in *E. coli* is a non-covalently disulfide-linked homodimer, non-glycosylated, polypeptide chain containing 2 identical 121 amino acids with a molecular weight of two 13.6 kDa polypeptide monomers.
The NGF- β is purified by proprietary chromatographic techniques.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

The beta-NGF protein was lyophilized from a 0.2 μ m filtered solution containing no additives or preservatives.

Solubility:

It is recommended to reconstitute the lyophilized NGF- β in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Purity:

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability:

Lyophilized Beta-NGF although stable at room temperature for 3 weeks, should be stored desiccated below -18 °C. Upon reconstitution NGF-Beta should be stored at 4°C between 2-7 days and for future use below -18 °C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Amino acid sequence:

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

Biological Activity:

The ED50, calculated by its ability to stimulate chick E9 DRG neurite outgrowth was found to be < 1.0ng/ml, corresponding to a specific activity of 1MIU/mg.

Protein content:

UV spectroscopy at 280 nm using the absorbency value of 1.1945 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

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