

# Nerve Growth Factor beta, human recombinant (rHubeta-NGF)

Catalog No: 86423 Lot No: XXXXX Source: CHO cells

**Synonyms:** Beta Polypeptide, NGF, NGFB, HSAN5, Beta-NGF, MGC161426, MGC161428

## **Background**

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 CHO is a noncovalently disulfide linked homodimer, glycosylated, polypeptide chain containing 2 identical 118 amino acids and having a molecular mass of 26.5 kDa. NGF-b is purified by proprietary chromatographic techniques.

# **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

### **Formulation**

The protein was lyophilized from a 0.2 µm filtered solution in 20 mM PBS and 250 mM, pH 7.0.

#### Solubility

It is recommended to reconstitute the lyophilized NGF-b in sterile 18 M $\Omega$ -cm H $_2$ O not less than 100  $\mu$ g/ml, which can then be further diluted to other agueous solutions.

# Stability

Lyophilized Nerve Growth Factor b, although stable at room temperature for 3 weeks, should be stored desiccated below -18C. Upon reconstitution Nerve Growth Factor-beta should be stored at 4C between 2-7 days and for future use below -18C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

## Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

# Activity

The ED50, calculated by its ability to stimulate chick E9 DRG neurite outgrowth was found to be <1.0 ng/ml, corresponding to a specific activity of  $>1 \times 10^6$  units/mg.

#### Usage

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