



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

---

# Certificate of Analysis and Data Sheet

## Recombinant Mouse beta Nerve Growth Factor

**Catalog No.**  
228-10114

**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. Nerve Growth Factor was the 1st protein found from the family of neurotrophic factors that influence the growth and differentiation of sympathetic and sensory neurons. NGF consists of 3 different subunits: alpha, beta, and gamma. The beta subunit is accountable for its growth stimulating activity. The synthesis of NGF in astrocytes is enhanced by a range of cytokines such as IL1, TNF-a, PDGF & TGF-b.

### **Description**

Recombinant Mouse b-NGF produced in E.Coli is a noncovalently disulfide-linked homodimer, non-glycosylated, polypeptide chain containing 2 identical chains of 120 amino acids each and having a molecular mass of 13,471 Dalton each.

The Recombinant Mouse-beta-NGF is purified by advanced biology purification technology.

### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Formulation**

The Recombinant Mouse b-NGF was lyophilized without additives.

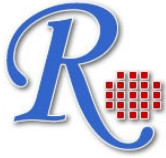
### **Solubility**

It is recommended to reconstitute the lyophilized Murine NGF-beta in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100 $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

### **Purity**

Greater than 98% 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.**



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

---

### ***Stability***

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

Please prevent freeze-thaw cycles.

### ***Amino Acid Sequence***

MSSTHPVFHM GEFVCDSDVS VWVGDKTTAT DIKGKEVTVL AEVNINNSVF  
RQYFFETKCR ASNPVESGCR GIDSKHWNSY CTTHTFVKA LTTDEKQAAW  
RFIRIDTACV CVLSRKATR G .

### ***Biological Activity***

The Mouse b-NGF activity was measured in a cell proliferation assay using a factor-dependent human erythroleukemic cell line, TF-1, the ED50 for this effect is 0.2 ng/ml.

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