

# Recombinant Human Beta-nerve growth factor/NGFB Protein

Catalog No.: RP01792    Recombinant    1 Publications

## Sequence Information

**Species**    **Gene ID**    **Swiss Prot**  
 Human    4803    P01138

**Tags**  
 C-His

**Synonyms**

NGFB; HSAN5; Beta-NGF

## Background

NGF is a well-characterized neurotropic protein that plays a critical role in the development of sympathetic and some sensory neurons in the peripheral nervous system. In addition, NGF can also act in the central nervous system as a trophic factor for basal forebrain cholinergic neurons. NGF has also been shown to have biological effects on non-neuronal tissues. NGF is mitogenic for a factor-dependent human erythroleukemic cell line, TF-1. NGF has been found to increase the number of mast cells in neonatal rats and to induce histamine release from peritoneal mast cells. NGF will enhance histamine release and strongly modulate the formation of lipid mediators by basophils in response to various stimuli. NGF will also induce the growth and differentiation of human B lymphocytes as well as suppress apoptosis of murine peritoneal neutrophils. These results, taken together, suggest that NGF is a pleiotropic cytokine which, in addition to its neurotropic activities, may have an important role in the regulation of the immune system.

## Product Information

**Source**    **Purification**  
 HEK293 cells     $\geq 90\%$  as determined by SDS-PAGE.

**Calculated MW**    **Observed MW**  
 25.78 kDa    15-20 kDa

**Endotoxin**  
 < 0.01 EU/ $\mu$ g of the protein by LAL method

**Formulation**  
 Lyophilized from a 0.22  $\mu$ m filtered solution of PBS, pH 7.4.

**Reconstitution**  
 Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Basic Information

**Description**

Recombinant Human Beta-nerve growth factor/NGFB Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser122-Ala241) of human NGF (Accession #NP\_002497.2) fused with a 6 $\times$ His tag at the C-terminus.

**Bio-Activity**

Recombinant Human NGF stimulates cell proliferation of the TF-1 human erythroleukemic cells. The ED<sub>50</sub> for this effect is 2.2-8.6 ng/mL, corresponding to a specific activity of  $1.16 \times 10^5$ - $4.55 \times 10^5$  units/mg.

**Shipping**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Storage**

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

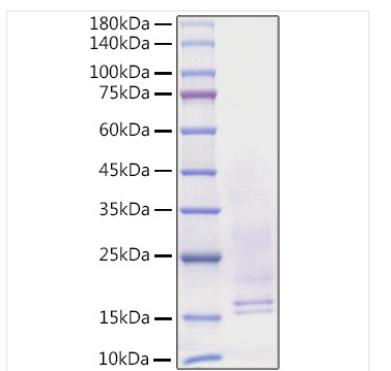
**Operational Notes**

For your safety and health, please wear a lab coat and disposable gloves for handling.

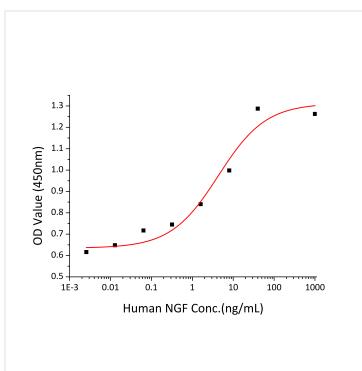
## Contact

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## Validation Data



Recombinant Human Beta-nerve growth factor/NGFB Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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