

# Recombinant Human $\beta$ -NGF/NGFB Protein

Catalog Number:PKSH033269



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

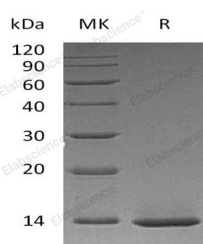
## Description

<b>Synonyms</b>	Beta-Nerve Growth Factor;Beta-NGF;NGF;NGFB
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Ser122-Ala241
<b>Accession</b>	P01138
<b>Calculated Molecular Weight</b>	14.4 kDa
<b>Observed molecular weight</b>	11 kDa
<b>Tag</b>	C-His

## Properties

<b>Purity</b>	> 98 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per $\mu$ g of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20 mM sodium citrate, 0.2 M NaCl, pH 3.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 98 % as determined by reducing SDS-PAGE.

## Background

Human  $\beta$ -Nerve Growth Factor ( $\beta$ -NGF) was initially isolated in the mouse submandibular gland. It is composed of three non-covalently linked subunits  $\alpha$ ;  $\beta$ ; and  $\gamma$ ; it exhibits all the biological activities ascribed to NGF. It is structurally related to BDNF; NT-3 and NT-4 and belongs to the cysteine-knot family of growth factors that assume stable dimeric structures. B-NGF is a neurotrophic factor that signals through its receptor  $\beta$ -NGF; and plays a crucial role in the development and preservation of the sensory and sympathetic nervous systems. B-NGF also acts as a growth and differentiation factor for B lymphocytes and enhances B-cell survival. These results suggest that  $\beta$ -NGF is a pleiotropic cytokine; which in addition to its neurotropic activities may have an important role in the regulation of the immune system. Human  $\beta$ -NGF shares 90% sequence similarity with mouse protein and shows cross-species reactivity.

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