

## Recombinant Human $\beta$ -NGF/NGFB Protein (aa 122-23, Human Cells)

Catalog No. PKSH033270

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

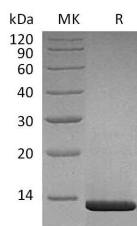
### Description

|                                    |  |
|------------------------------------|--|
| <b>Synonyms</b>                    | Beta-Nerve Growth Factor;Beta-NGF;NGF;NGFB   |
| <b>Species</b>                     | Human  |
| <b>Expression Host</b>             | HEK293 Cells   |
| <b>Sequence</b>                    | Ser122-Arg239  |
| <b>Accession</b>                   | P01138   |
| <b>Calculated Molecular Weight</b> | 13.3 kDa   |
| <b>Observed molecular weight</b>   | 14 kDa   |
| <b>Tag</b>                         | None   |
| <b>Bioactivity</b>                 | Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 0.04-0.4 ng/ml. |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 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 a 0.2 $\mu$ m filtered solution of 20mM PB, 250mM NaCl, pH 7.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

### Data



> 95 % 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

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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.