

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

**Catalog No.** PKSM041189

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

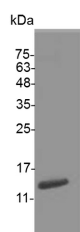
### Description

|                                    |                                       |
|------------------------------------|---------------------------------------|
| <b>Synonyms</b>                    | Beta-nerve growth factor;Beta-NGF;Ngf |
| <b>Species</b>                     | Mouse                                 |
| <b>Expression Host</b>             | E.coli                                |
| <b>Sequence</b>                    | Ser122-Gly241                         |
| <b>Accession</b>                   | P01139                                |
| <b>Calculated Molecular Weight</b> | 14.4 kDa                              |
| <b>Observed molecular weight</b>   | 11-17 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 4.5.<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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



> 98 % as determined by reducing SDS-PAGE.

### Background

NGF is the first member discovered in the Neurotrophin family, which includes brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3), and neurotrophin-4 (NT-4). These proteins belong to the cysteine-knot family of growth factors that assume stable dimeric structures. Mouse beta -NGF is a homodimer of two 120 amino acid polypeptides. It

### For Research Use Only

shares approximately 90% homology at the amino acid level with human beta -NGF and 95.8% with rat beta -NGF. NGF signaling has been shown to play an important role in neuroprotection and repair.  $\beta$ -NGF acts as a growth and differentiation factor for B lymphocytes, and enhances B-cell survival. It is a potent neurotrophic factor that signals through its receptor  $\beta$ -NGFR, and plays a crucial role in the development and preservation of the sensory and sympathetic nervous systems.