

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

**Catalog Number:** PKSM041189

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

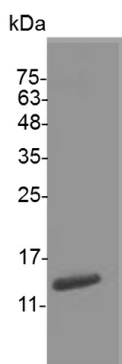
### Description

|                      |  |
|----------------------|--|
| <b>Species</b>       | Mouse  |
| <b>Source</b>        | E.coli-derived Mouse $\beta$ -NGF/NGFB protein Ser122-Gly241 , with an C-terminal His  |
| <b>Calculated MW</b> | 14.4 kDa   |
| <b>Observed MW</b>   | 11-17 kDa  |
| <b>Accession</b>     | P01139   |
| <b>Bio-activity</b>  | Measure by its ability to induce TF-1 cells proliferation. The $ED_{50}$ for this effect is <1ng/mL. The specific activity of recombinant mouse beta-NGF is > 1 x 10 <sup>6</sup> IU/mg. |

### 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% Tween 80 are added as protectants before lyophilization.  |
| <b>Reconstitution</b> | Please refer to the specific buffer information in the printed manual.<br>Please refer to the printed manual for detailed information.   |

### Data



> 98 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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 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.