Recombinant Mouse β-NGF/NGFB Protein

Catalog Number: PKSM041189

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

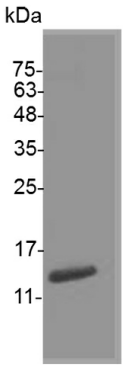
Description

Species	Mouse
Source	E.coli-derived Mouse β-NGF/NGFB protein Ser122-Gly241 , with an C-terminal His
Calculated MW	14.4 kDa
Observed MW	11-17 kDa
Accession	P01139
Bio-activity	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 10^6 IU/mg.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20 mM sodium citrate, 0.2 M NaCl, pH 4.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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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 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. β-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 β-NGFR, and plays a crucial role in the development and preservation of the sensory and sympathetic nervous systems.