## Recombinant Mouse NGF/NGFB/beta-NGF protein (His Tag)

## Catalog Number: PDEM100312

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

Species	Mouse		
Source	E.coli-derived Mouse NGF protein Ser122-Gly241, with an N-terminal His		
Calculated MW	13.1 kDa		
Observed MW	15 kDa		
Accession	P01139		
Bio-activity	Not validated for activity		
Properties			
Purity	> 95% as determined by reducing SDS-PAGE.		
Endotoxin	< 10 EU/mg 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		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of		
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution in PBS with 5% Trehalose and 5%		
	Mannitol.		
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of		
	0.5 mg/mL. Concentration is measured by UV-Vis.		



KDa	М	R
80	-	
60		
40	-	
30		
20		_
12		
	1	1

> 95 % 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 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.

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