## **Recombinant Mouse β-NGF/Beta-NGF Protein**

Catalog Number: PKSM040709



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

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Description	
Synonyms	Ngfb
Species	Mouse
Expression Host	CHO Stable Cells
Sequence	Ser 122-Gly 241
Accession	NP_001106168.1
Calculated Molecular Weight	13.5 kDa
Observed molecular weight	13.5 kDa
Tag	None
Bioactivity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 1-8ng/mL.
Properties	
Purity	> 96 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per $\mu$ g 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°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM NaAc, 150mM NaCl, pH 5.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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	
KDa M 116 66.2 45.0 35.0 25.0 18.4 14.4	

> 96 % as determined by reducing SDS-PAGE.

## Background

Nerve growth factor (NGF) is important for the development and maintenance of the sympathetic and sensory nervous systems. NGF protein was identified as a large complex consisting of three non-covalently linked subunits,  $\alpha$ ,  $\beta$ , and  $\gamma$ , among which, the  $\beta$  subunit, called  $\beta$ -NGF (beta-NGF), was demonstrated to exhibits the growth stimulating activity of NGF protein. NGFB/beta-NGF gene is a member of the NGF-beta family and encodes a secreted protein which homodimerizes and is incorporated into a larger complex. NGF protein acts via at least two receptors on the surface of cells (TrkA and p75 receptors) to regulate neuronal survival, promote neurite outgrowth, and up-regulate certain neuronal

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functions such as mediation of pain and inflammation. In addition, previous studies indicated that NGF may also have an important role in the regulation of the immune system.

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