Recombinant Human β-NGF/NGFB Protein

Catalog Number: PKSH033269

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

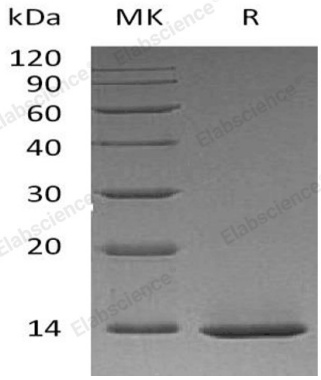
Description

Species	Human
Source	E.coli-derived Human β-NGF/NGFB protein Ser122-Ala241, with an C-terminal His
Calculated MW	14.4 kDa
Observed MW	11 kDa
Accession	P01138
Bio-activity	Measure by its ability to induce TF-1 cells proliferation. The ED_{50} for this effect is <0.7 ng/mL. The specific activity of recombinant human beta-NGF is > 1 x 10^6 IU/mg.

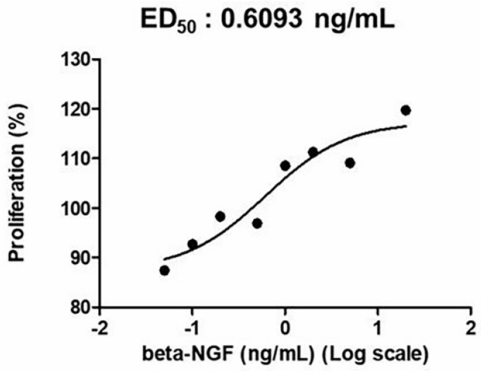
Properties

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°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 20 mM sodium citrate, 0.2 M NaCl, pH 3.5. 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



> 98 % as determined by reducing SDS-PAGE.



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Background

Human β-Nerve Growth Factor (β-NGF) was initially isolated in the mouse submandibular gland. It is composed of three non-covalently linked subunits α; β; and γ; it exhibits all the biological activities ascribed to NGF. It is structurally related to BDNF; NT-3 and NT-4 and belongs to the cysteine-knot family of growth factors that assume stable dimeric structures. B-NGF is a neurotrophic factor that signals through its receptor β-NGF; and plays a crucial role in the development and preservation of the sensory and sympathetic nervous systems. B-NGF also acts as a growth and differentiation factor for B lymphocytes and enhances B-cell survival. These results suggest that β-NGF is a pleiotropic cytokine; which in addition to its neurotropic activities may have an important role in the regulation of the immune system. Human β-NGF shares 90% sequence similarity with mouse protein and shows cross-species reactivity.

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