

Recombinant Human Nerve Growth Factor

#R00611

Size: 20 µg/100 µg/500 µg

Stability & Storage

Please use a manual defrost freezer and avoid repeated freeze-thaw cycles.

-Lyophilized protein should be stored at $\leq -20^{\circ}\text{C}$, stable for 12 months after receipt.

-Reconstituted protein solution can be stored at $2-8^{\circ}\text{C}$ for 1-2 weeks.

-Aliquots of reconstituted samples are stable at $\leq -20^{\circ}\text{C}$ for 3 months.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

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.

AA Sequence

Ser122--Ala241, Accession #P01138

Reconstitution

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Reconstitute in sterile distilled water to a concentration of 0.1-1.0 mg/mL. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Product Specification

Species	Human
Source	CHO Cells
Molecular Weight	Recombinant Human beta-NGF Protein, a noncovalently-linked homodimer, each subunit containing 120 amino acid residues, has a predicted molecular mass of approximately 27.0 kDa.
Purity	> 98% by SDS-PAGE gel and HPLC analyses.
Biological Activity	Determined by the dose-dependent stimulation of the proliferation of human TF-1 cells. The expected ED_{50} is 1.0 ng/ml, corresponding to a specific activity of 1×10^6 units/mg.

Formulation	Lyophilized from a 0.22 µm filtered solution of in PBS. See CoA for details.
Endotoxin	Less than 0.1 EU/µg of rHuβ-NGF as determined by LAL test.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
