Recombinant Human β-NGF
Catalog # C060
Derived from E.coli

DESCRIPTION
Recombinant Human beta-Nerve Growth Factor is produced by our E.coli expression system and the target gene encoding Ser122-Ala241 is expressed.
Accession #: P01138
Known as: Beta-Nerve Growth Factor; Beta-NGF; NGF; NGFB

FORMULATION
Lyophilized from a 0.2 μm filtered solution of 20mM PB, 250mM NaCl, pH 7.0.

SHIPPING
The product is shipped at ambient temperature.
Upon receipt, store it immediately at the temperature listed below.

STORAGE
Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks.
Reconstituted protein solution can be stored at 4-7°C for 2-7 days.
Aliquots of reconstituted samples are stable at < -20°C for 3 months.

RECONSTITUTION
Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
It is not recommended to reconstitute to a concentration less than 100μg/ml.
Dissolve the lyophilized protein in distilled water.
Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

QUALITY CONTROL
Bioactivity* Measured by the dose-dependent stimulation of the proliferation of human TF-1 cells.
ED50 is less than 1.0 ng/ml. Specific Activity is greater than 1 x 10^6 IU/mg.
Purity: Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin: Less than 0.1 ng/μg (1 IEU/μg).

AMINO ACID SEQUENCE
SSSHPIFHRGEFSVCDSVSVWVGDKTTATDKGEVKVEVMQINNSVFKQFYFETKCRDPNPVDSGCRGIDSKHWNSYCTTT
HTFVKALTMDGQAAWRFIRIDTACVVLRSRKAVRRRA

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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