

Datasheet for ABIN1096128 **NGFB Protein (AA 122-241)**

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Overview

Quantity:	50 µg
Target:	NGFB
Protein Characteristics:	AA 122-241
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Functional Studies (Func)

Product Details

Purpose:	Recombinant Human β -Nerve Growth Factor/ β -NGF (Ser122-Ala241, E. coli)
Sequence:	SSSHPIFHRRG EFSVCDSVSV WVGDKTTATD IKGKEVMVLG EVNINNSVFK QYFFETKCRD PNPVDSGCRG IDSKHWNSYC TTTHTFVKAL TMDGKQAAGR FIRIDTACVC VLSRKAVRRA
Characteristics:	Recombinant Human NGF Beta (beta-Nerve Growth Factor/beta-NGF) produced in E. coli is a non-glycosylated non-covalent homodimer of two 118 amino acid polypeptides each with a molecular mass of 13.4 kDa.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered
Endotoxin Level:	Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test

Target Details

Target:	NGFB
Alternative Name:	beta-Nerve Growth Factor (NGFB Products)
Background:	<p>Recombinant Human NGF Beta: beta-Nerve Growth Factor/beta-NGF was initially isolated in the mouse submandibular gland. It is composed of three non-covalently linked subunits alpha, beta, and gamma, 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. Beta-NGF is a neurotrophic factor that signals through its receptor beta-NGF, and plays a crucial role in the development and preservation of the sensory and sympathetic nervous systems. Beta-NGF also acts as a growth and differentiation factor for B lymphocytes and enhances B-cell survival. These results suggest that beta-NGF is a pleiotropic cytokine, which in addition to its neurotropic activities may have an important role in the regulation of the immune system. Recombinant Human NGF Beta shares 90% sequence similarity with mouse protein and shows cross-species reactivity. References Forsell P, et al. The use of TrkA-PathHunter assay in high-throughput screening to identify compounds that affect nerve growth factor signaling. PMID: 23458757 http://www.ncbi.nlm.nih.gov/pubmed/23458757</p> <p>Alternative Names: Recombinant Human NGF Beta, Beta-Nerve Growth Factor, Beta-NGF, NGF, NGFB</p>
Molecular Weight:	13.4 kDa
UniProt:	P01138
Pathways:	NF-kappaB Signaling , RTK Signaling , Regulation of Cell Size

Application Details

Comment:	Biological activity: ED50 is less than 1.0 ng/ml as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells. Specific Activity is greater than 1 x 10 ⁶ IU/mg.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	<p>It is not recommended to reconstitute to a concentration less than 100 µg/mL.</p> <p>Dissolve the lyophilized protein in ddH₂O.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>

Handling

Buffer:	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 250 mM NaCl, pH 7.0.
Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Storage:	4 °C/-20 °C/-80 °C
Storage Comment:	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.
Expiry Date:	3 months