



Recombinant Human NGF-beta

20180205BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-084S
Size:	5 µg
Lot. No.:	According to product label

Sequence

SSSHPIFHRG EFSVCDSVSV WVGDKTTATD IKGKEVMVLG
EVNINNSVFK QYFFETKCRD PNPVDSGCRG IDSKHWNSYC
TTHTTFVKAL TMDGKQAARW FIRIDTACVC VLSRKAVRRA

Database References

Protein RefSeq:	NP_002497.2
Uniprot ID:	P01138
mRNA RefSeq:	NM_002506

Scientific Background

Gene-ID (NCBI):	4803
Synonyms:	NGF; NGFB; HSAN5; Beta-NGF

β-NGF is a neurotrophic factor structurally related to BDNF, NT-3 and NT-4. These proteins belong to the cysteine-knot family of growth factors that assume stable dimeric structures. β-NGF is a potent neurotrophic factor that signals through its receptor β-NGFR, and plays a crucial role in the development and preservation of the sensory and sympathetic nervous systems. β-NGF also acts as a growth and differentiation factor for B lymphocytes and enhances B-cell survival. The functional form of human β-NGF is a noncovalently disulfide-linked homodimer, of two 13.5 kDa polypeptide monomers (240 total amino acid residues). The three disulfide bonds are required for biological activity.

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analysis
Structural Information	disulphide-linked homodimer
Endotoxin level	< 0.1 ng/µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	240
MW:	13.5 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by the dose-dependent stimulation of the proliferation of TF-1 cells. The ED₅₀ is ≤ 1.0 ng/ml, corresponding to a specific activity of ≥ 1 x 10⁶ units/mg.