

Active Recombinant Human Nerve Growth Factor (beta polypeptide)

Cat. No. NGF-573H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human NGF-beta is a noncovalently disulfide-linked homodimer, consisting of 121 amino acids with a molecular weight of two 13.6 kDa polypeptide monomers.
Species	Human
Source	E.coli
Description	Human NGF-beta is a neurotrophic factor related to BDNF, NT-3 and NT-4. Human NGF-beta acts as a neurotrophic factor through its receptor beta-NGFR, and is involved in the development and sustaining the sensory and sympathetic nervous systems. H-NGFbeta also is also involved in the growth and differentiation of B lymphocytes and B-cell survival.
Form	Human NGF-beta is lyophilized with no additives.
Purity	Purity Greater than 97% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	Biological activity is determined by the ability to stimulate neurite growth in chick E9 DRG cells. The ED50 is < 1.0 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.
Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and

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wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/s/ml, which can be further diluted into other aqueous solutions.

Purity Greater than 97% as determined by

Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.

Protein Content determined by

Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.

Endotoxin Level

Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.

Amino acid sequence

MSSSHPIFHRG EFSVCDVS SV WVGDKTTATD IKGKEVMVLG EVNINNSVFK
QYFFETKCRD PNPVDSGCRG IDSKHWNSYC TTTHTFVKAL TMDGKQAAR
FIRIDTACVC VLSRKAVRR

Storage

Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

Pathways

Apoptosis, MAPK signaling pathway, Signalling by NGF

GENE INFORMATION

Gene Name

NGF nerve growth factor (beta polypeptide) [Homo sapiens]

Official Symbol

NGF

Synonyms

NGF; nerve growth factor (beta polypeptide); NGFB; HSAN5; Beta-NGF;

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MGC161426; MGC161428; Beta-nerve growth factor; nerve growth factor, beta subunit; nerve growth factor, beta polypeptide; beta-nerve growth factor; OTTHUMP00000013653

Gene ID 4803

mRNA Refseq NM_002506

Protein Refseq NP_002497

MIM 162030

UniProt ID P01138

Chromosome Location 1p13.1

Function growth factor activity, nerve growth factor receptor binding, receptor signaling protein activity

Rendering of NGF from PDB 1SG1.

