

Active Recombinant Human Nerve Growth Factor (Beta Polypeptide)

Cat. No. NGF-14H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human nerve growth factor (beta polypeptide) encoding the human beta-NGF protein sequence (containing the signal peptide, pro-peptide and the mature beta-NGF sequence) was expressed in modified <i>human 293 cells</i> .
Species	Human
Source	HEK293
Description	Beta-NGF, also known as nerve growth factor beta-1, NGF-b1, or NGF-beta, is a neurotrophic factor that influences the growth and differentiation of sympathetic and sensory neurons. Beta-NGF, comprised alpha, beta, and gamma subunits, is a 26 kDa non-covalently associated homodimer with 2 potential N-linked glycosylation sites.
Amino Acid Sequence	YAEHKSHRGEYSVCDSESLWVTDKSSAIDIRGHQVTVLGEIKTGNSPVKQYFYETRC KEAR PVKNGCGRIDDKHWNSQCKTSQTYVRALTSENNKLVGWRWIRIDTSCVCAL SRKIGRT.
Molecular Mass	Beta-NGF migrates at approximately 12-16 kDa in SDS-PAGE. This compares with the predicted molecular mass of 13.5 kDa.
pI	Beta-NGF separates into a number of isoforms with a pI between 9 and 10 in 2D PAGE due to post-translational modifications. This compares with the unmodified beta-NGF that has a predicted pI of 9.

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Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
Activity	The ED50 of beta-NGF is typically 0.2-1.0 ng/ml as measured in a cell proliferation assay using the human growth factor dependent TF-1 cell line.

GENE INFORMATION

Gene Name	NGF nerve growth factor (beta polypeptide) [Homo sapiens]
Synonyms	NGF; nerve growth factor (beta polypeptide); NGFB; HSAN5; Beta-NGF; 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
UniProt ID	P01138

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Chromosome Location	1p13.1
MIM	162030
Pathway	Apoptosis; MAPK signaling pathway; Neurotrophin signaling pathway; Signalling by NGF
Function	growth factor activity; rve growth factor receptor binding; receptor signaling protein activity

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