Active Recombinant Human Nerve Growth Factor (Beta Polypeptide)

Cat. No. NGF-476H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human NGF (Ser 122-Arg 239) was expressed in CHO Cells.
Species	Human
Source	Mammalian Cells
ProteinLength	122-239 a.a.
Description	As the first one of a series of neurotrophic factors, nerve growth factor (NGF) is important for the development and maintenance of the sympathetic and sensory nervous systems. NGF was identified as a large complex consisting of three non-covalently linked subunits, α, β, and γ, among which, the β subunit, called β-NGF, was demonstrated to exhibits the growth stimulating activity of NGF. β-NGF is a target-derived secreted homodimeric protein of two 120-amino acid mature polypeptides after proteolytic removal of the signal and pro peptide. NGF acts via at least two receptors on the surface of cells, TrkA and p75 receptors to regulate neuronal survival, promote neurite outgrowth, and up-regulate certain neuronal functions such as mediation of pain and inflammation.
Purity	> 98 % as determined by SDS-PAGE
Bio-activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is typically 0.4 - 1.0 ng / ml Measured in a cell survival assay using PC-12 rat pheochromocytoma cells. The ED50 for this effect is typically 1.07 ng

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	/ mL
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Predicted N terminal	Ser 122
Molecular Mass	The mature recombinant human β-NGF consists of 118 amino acids and has a predicted molecular mass of 13.2 kDa. β-NGF exists as a non-disulfide linked homodimer in solution
Formulation	Lyophilized from sterile 20mM NaAc, 150mM NaCl , pH 5.5
Storage	Store it under sterile conditions at -70℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	NGF nerve growth factor (beta polypeptide) [Homo sapiens]
Synonyms	Beta-NGF; HSAN5; MGC161426; MGC161428; NGFB; NID67; OTTHUMP00000013653; beta-nerve growth factor; nerve growth factor (beta polypeptide); nerve growth factor, beta polypeptide; nerve growth factor, beta subunit; Beta Polypeptide; NGF
Gene ID	4803
mRNA Refseq	NM_002506
Protein Refseq	NP_002497

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MIM	162030
UniProt ID	P01138
Chromosome Location	1p13.1
Pathway	Apoptosis; MAPK signaling pathway; Signalling by NGF
Function	growth factor activity; nerve growth factor receptor binding; receptor signaling protein activity

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