

Recombinant Mouse Nerve Growth Factor

Cat. No. Ngf-662M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Ngf is a monomeric protein consisting of two 118 amino acid residue subunits, and migrates as an approximately 13 kDa protein under non-reducing and reducing conditions in SDS-PAGE, and was lyophilized from a 0.2 µm filtered solution in 10mM sodium acetate, pH 5.5.
Species	Mouse
Source	Mouse
Description	NGF is mainly responsible for the survival and the differentiation and the functional activities of sensory and sympathetic neurons in the peripheral nervous system. It also plays an important role in the development and functional activities of cholinergic neurons in the central nervous system. Since NGF is synthesized also in non-neuronal tissues it may have a much wider spectrum of biological activities than thought previously. NGF stimulates chemotactic migration of human polymorphonuclear leukocytes in vitro.
Purity	>95%, as determined by SDS-PAGE and HPLC.
Sequence	MSMLFYTLITAFILGVQAEP YTDSNVPEGD SVPEAHWTKL QHSLDTALRR ARSAPTAPIA ARVTGQTRNI TVDPRLFKKRRLLHSPRVLFS TQPPPTSSDT LDLDFQAHGT IPFNRTHRSK RSSTHPVFHM GEFSVCDSVS VWVGDKTTATDIKGKEVTVL AEVNINNSVF RQYFFETKCR ASNPVESGCR GIDSKHWNSY CTTHTTFVKA LTTDEKQAAWRFIRIDTACV CVLSRKATRR G

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Molecular Weight	Native Mouse Ngf is generated by the proteolytic removal of the signal peptide and propeptide. The molecule has a calculated molecular mass of approximately 27 kDa.
Biological Activity	The ED ₅₀ was determined by its ability to stimulate chick E9DRG neurite outgrowth. It was found to be in the range of 1.0 ng/ml.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/g (1 EU/g).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2°C - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.
Official Symbol	Ngf
Pathways	ARMS-mediated activation; Activation of TRKA receptors; Apoptosis; Axonal growth stimulation; Ceramide signaling; Id Signaling Pathway; MAPK signaling pathway; NGF processing; Neurotrophin signaling pathway; PI3K/AKT activation; PLC-gamma1 signaling; Signalling by NGF; Signalling to ERKs; Signalling to RAS; Signalling to STAT3

GENE INFORMATION

Gene Name	Ngf nerve growth factor [<i>Mus musculus</i>]
Synonyms	Ngf; nerve growth factor; Ngfb; beta-nerve growth factor; beta-NGF; nerve growth factor, beta

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Gene ID	18049
mRNA Refseq	NM_013609
Protein Refseq	NP_038637
UniProt ID	P01139
Function	growthfactor activity; nerve growth factor receptor binding; receptor binding; receptorsignaling protein activity
Renderingof NGF from PDB 1SG1	

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