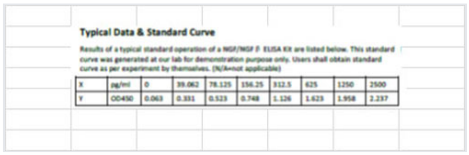
Beta-Nerve Growth Factor (NGF/NGFbeta) ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	Beta-nerve growth factor (NGF/NGFbeta), ELISA Kit
Full Product Name	Rat Beta-nerve growth factor ELISA Kit
Product Gene Name	NGF/NGFbeta elisa kit
Product Synonym Gene Name	NGF/NGFb
Product Synonym Names	NGF/NGFb/NGFB/beta-nerve growth factor/Beta-NGF/HSAN5/nerve growth factor (beta polypeptide); Beta-nerve growth factor
Species Reactivity	Rat
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	39.063-2500pg/ml
Sensitivity	23.438pg/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of NGF/NGF? . No significant cross-reactivity or interference between NGF/NGF? and analogues was observed. Note: Limited by current skills and knowledge, it is difficult for us to complete the crossreactivity detection between NGF/NGF? and all the analogues, therefore, cross reaction may still exist.
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level NGF/NGF? were tested on 3 different plates, 8 replicates in each plate. CV (%) = SD/meanX100. Inter-Assay: CV<10%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level NGF/NGF? were tested 20 times on one plate, respectively. Intra-Assay: CV<8%
Molecular Weight	26,959 Da
OMIM	162030
3D Structure	ModBase 3D Structure for P01138
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for NGF/NGFbeta elisa kit	Principle of the Assay: This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-NGF/NGF? antibody was pre-coated onto 96-well plates. And the biotin conjugated anti- NGF/NGF? antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and washed with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the NGF/NGF? amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of NGF/NGF? can be calculated.
Other Notes	Small volumes of NGF/NGFbeta elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for NGF/NGFbeta purchase	MBS762165 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Beta-nerve growth factor (NGF/NGFbeta) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing NGF/NGFbeta. The ELISA analytical biochemical technique of the MBS762165 kit is based on NGF/NGFbeta antibody-NGF/NGFbeta antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect NGF/NGFbeta antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, NGF/NGFbeta. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of NGF/NGFbeta elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NGF/NGFbeta. It may not necessarily be applicable to this product.

NCBI GI #	671883
NCBI GeneID	4803
NCBI Accession #	CAA24755.1
UniProt Primary Accession #	P01138
UniProt Secondary Accession #	Q6FHA0; Q96P60; Q9P2Q8; Q9UKL8; A1A4E5
UniProt Related Accession #	P01138
NCBI Official Full Name	beta-nerve growth factor
NCBI Official Synonym Full Names	nerve growth factor (beta polypeptide)
NCBI Official Symbol	NGF
NCBI Official Synonym Symbols	NGFB; HSAN5; Beta-NGF
UniProt Protein Name	Beta-nerve growth factor
Protein Family	Beta-nerve growth factor
UniProt Gene Name	NGF
UniProt Synonym Gene Names	NGFB; Beta-NGF
UniProt Entry Name	NGF_HUMAN
NCBI Protein Information	beta-nerve growth factor
NCBI Summary for NGF/NGFbeta	This gene is a member of the NGF-beta family and encodes a secreted protein which homodimerizes and is incorporated into a larger complex. This protein has nerve growth stimulating activity and the complex is involved in the regulation of growth and the differentiation of sympathetic and certain sensory neurons. Mutations in this gene have been associated with hereditary sensory and autonomic neuropathy, type 5 (HSAN5), and dysregulation of this gene's expression is associated with allergic rhinitis. [provided by RefSeq, Jul 2008]

UniProt Comments for NGF/NGFbeta	NGF: Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems. Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades through those receptor tyrosine kinase to regulate neuronal proliferation, differentiation and survival. Homodimer. Belongs to the NGF-beta family. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 1p13.1 Cellular Component: cytoplasmic membrane-bound vesicle; endosome; extracellular region; Golgi lumen Molecular Function: growth factor activity; metalloendopeptidase inhibitor activity; nerve growth factor receptor binding; protein binding; receptor signaling protein activity Biological Process: activation of MAPKK activity; cell-cell signaling; induction of apoptosis via death domain receptors; negative regulation of apoptosis; negative regulation of cell cycle; negative regulation of neuron apoptosis; nerve growth factor processing; nerve growth factor receptor signaling pathway; neurite morphogenesis; neuron apoptosis; peripheral nervous system development; phosphoinositide-mediated signaling; phospholipase C activation; positive regulation of apoptosis; positive regulation of axon extension; positive regulation of axonogenesis; positive regulation of collateral sprouting; positive regulation of neuron maturation; positive regulation of protein ubiquitination; Ras protein signal transduction; regulation of axonogenesis; regulation of caspase activity; regulation of neuron differentiation; regulation of neurotransmitter secretion; regulation of release of sequestered calcium ion into cytosol; sensory perception of pain; small GTPase mediated signal transduction; transmembrane receptor protein tyrosine kinase signaling pathway Disease: Neuropathy, Hereditary Sensory And Autonomic, Type V
Research Articles on NGF/NGFbeta	**1.** NGF and its precursor proNGF are primarily considered as regulators of neuronal function that induce their responses via the tyrosine kinase receptor TrkA and the panneurotrophin receptor p75NTR. (Review)
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