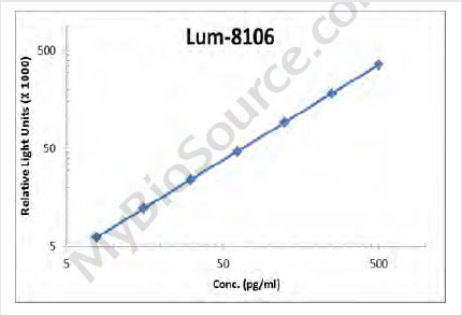
Beta-NGF CLIA Kit for Human

PRODUCT OVERVIEW

Product Name	beta-NGF, CLIA Kit
Full Product Name	beta-NGF (Human) LumiAb ELISA Kit
Product Gene Name	beta-NGF clia kit
Product Synonym Gene Name	NGF
Product Synonym Names	Human beta-NGF; Beta-nerve growth factor
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Sensitivity	4 pg/ml.
Specificity	The LumiAb Human Betacellulin ELISA is capable of recognizing both recombinant and naturally produced Human Betacellulin proteins. The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference.
Preparation and Storage	Store at 4 degree C for 6 months.
OMIM	gene 608654
3D Structure	ModBase 3D Structure for P01138
Product Categories/Family for beta-NGF clia kit	Luminometer Sandwich ELISA
Related Product Information for beta-NGF clia kit	Principle of the Assay: The LumiAb Human Betacellulin Chemiluminescent ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human Betacellulin concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human Betacellulin while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a sensitive luminescent reaction to ensue upon substrate addition. When the Peroxide Enhancer solution is added, the reaction catalyzed by peroxidase yields light that is representative of the antigen concentration. After a brief incubation, the microplate can be read with a luminometer, allowing for generation of a standard curve and subsequent determination of protein concentration!!Background/Introduction: Human Betacellulin is a 48 amino acid cytokine protein that is encoded by the BTC gene on chromosome 4 at locus 4q13-q21. The protein Probetacellulin is a 178 residue transmembrane precursor peptide that undergoes proteolytic cleavage, resulting in the mature form of Betacellulin. It has been determined that Betacellulin is a potent mitogen for retinal pigment epithelial cells and vascular smooth muscle cells via its high affinity interaction with the EGF receptor as it contains an EGF-like domain. The small peptide is expressed in several tissue types-predominantly in the pancreas, small intestine and range of tumor cells. The secondary structure of Betacellulin contains a 3 residue alpha helix and 5 beta strands composed of 18 residues.
Other Notes	Small volumes of beta-NGF clia 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 beta-NGF purchase	MBS9510761 is a CLIA kit targeting beta-NGF. Also known as beta-NGF (Human) LumiAb ELISA Kit. Reactive in Human.



Typical Testing Data/Standard Curve (for reference only) of beta-NGF clia kit

ADDITIONAL DETAILS

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

NCBI GI #	90110037
NCBI GeneID	4803
NCBI Accession #	P01138.3
UniProt Primary Accession #	P01138
UniProt Related Accession #	P01138
NCBI Official Full Name	Beta-nerve growth factor
NCBI Official Synonym Full Names	nerve growth factor
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 beta-NGF	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 beta-NGF	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: extracellular space; Golgi lumen; cytoplasmic membrane-bound vesicle; extracellular region; endosome Molecular Function: metalloendopeptidase inhibitor activity; protein binding; nerve growth factor receptor binding; growth factor activity; receptor signaling protein activity Biological Process: response to nicotine; circadian rhythm; response to peptide hormone stimulus; nerve growth factor receptor signaling pathway; activation of MAPKK activity; positive regulation of apoptosis; adult locomotory behavior; regulation of neuron differentiation; positive regulation of axon extension; response to glucocorticoid stimulus; regulation of neurotransmitter secretion; response to lipopolysaccharide; regulation of caspase activity; sensory perception of pain; regulation of axonogenesis; negative regulation of cell cycle; nerve growth factor processing; response to radiation; cell-cell signaling; small GTPase mediated signal transduction; negative regulation of neuron apoptosis; response to electrical stimulus; inflammatory response; response to drug; positive regulation of neuron maturation; phosphoinositide-mediated signaling; positive regulation of protein amino acid autophosphorylation; positive regulation of nerve growth factor receptor signaling pathway; regulation of release of sequestered calcium ion into cytosol; memory; peripheral nervous system development; neuron apoptosis; induction of apoptosis via death domain receptors; response to mechanical stimulus; phospholipase C activation; response to ozone; Ras protein signal transduction; positive regulation of axonogenesis; positive regulation of transcription factor activity; neurite morphogenesis; transmembrane receptor protein tyrosine kinase signaling pathway; negative regulation of apoptosis Disease: Neuropathy, Hereditary Sensory And Autonomic, Type V
Research Articles on beta-NGF	**1.** The results demonstrated that high serum NGF concentrations were independently associated with the better functional prognosis at 3months following the occurrence of stroke.
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