BDNF Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	BDNF, Blocking Peptide
Full Product Name	BDNF Peptide - N-terminal region
Product Gene Name	BDNF blocking peptide
Sequence	Synthetic peptide located within the following region: EELLDEDQKV RPNEENNKDA DLYTSRVMLS SQVPLEPPLL FLLEEYKNYL
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	BDNF peptide (MBS3231103) is used for blocking the activity of BDNF antibody (MBS3206140)
Molecular Weight	36kDa
OMIM	phenotype 610269
Product Categories/Family for BDNF blocking peptide	Peptide
Applications Tested/Suitable for BDNF blocking peptide	Western Blot (WB)
Related Product Information for BDNF blocking peptide	This is a synthetic peptide designed for use in combination with anti-BDNF Antibody, made Target Description: The protein encoded by this gene is a member of the nerve growth factor family. It is induced by cortical neurons, and is necessary for survival of striatal neurons in the brain. Expression of this gene is reduced in both Alzheimer's and Huntington disease patients. This gene may play a role in the regulation of stress response and in the biology of mood disorders. Multiple transcript variants encoding distinct isoforms have been described for this gene.
Other Notes	Small volumes of BDNF blocking peptide 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 BDNF purchase	MBS3231103 is a blocking peptide targeting BDNF. Also known as BDNF Peptide - N-terminal region. Reactive in Human.

ADDITIONAL DETAILS

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

NCBI GI #	114900
NCBI GeneID	627
NCBI Accession #	P23560.1
UniProt Primary Accession #	P23560
UniProt Related Accession #	P23560
NCBI Official Full Name	Brain-derived neurotrophic factor

NCBI Official Synonym Full Names	brain derived neurotrophic factor
NCBI Official Symbol	BDNF
NCBI Official Synonym Symbols	ANON2; BULN2
UniProt Protein Name	Brain-derived neurotrophic factor
UniProt Synonym Protein Names	Abrineurin
Protein Family	Brain-derived neurotrophic factor
UniProt Gene Name	BDNF
UniProt Synonym Gene Names	BDNF
UniProt Entry Name	BDNF_HUMAN
NCBI Protein Information	brain-derived neurotrophic factor
NCBI Summary for BDNF	This gene encodes a member of the nerve growth factor family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature protein. Binding of this protein to its cognate receptor promotes neuronal survival in the adult brain. Expression of this gene is reduced in Alzheimer's, Parkinson's, and Huntington's disease patients. This gene may play a role in the regulation of the stress response and in the biology of mood disorders. [provided by RefSeq, Nov 2015]
UniProt Comments for BDNF	BDNF: During development, promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systems. Participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. Major regulator of synaptic transmission and plasticity at adult synapses in many regions of the CNS. The versatility of BDNF is emphasized by its contribution to a range of adaptive neuronal responses including long-term potentiation (LTP), long-term depression (LTD), certain forms of short-term synaptic plasticity, as well as homeostatic regulation of intrinsic neuronal excitability. Defects in BDNF are a cause of congenital central hypoventilation syndrome (CCHS); also known as congenital failure of autonomic control or Ondine curse. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible ventilatory and arousal responses to hypercapnia and hypoxemia. CCHS is frequently complicated with neurocristopathies such as Hirschsprung disease that occurs in about 16% of CCHS cases. Belongs to the NGF-beta family. 5 isoforms of the human protein are produced by alternative promoter. Protein type: Secreted, signal peptide; Cytokine; Cell development/differentiation; Secreted Chromosomal Location of Human Ortholog: 11p13 Cellular Component: extracellular space; synaptic vesicle; mitochondrial crista; perinuclear region of cytoplasm; cytoplasmic membrane-bound vesicle; cytoplasm; dendrite; extracellular region; terminal button; perikaryon Molecular Function: growth factor activity; neurotrophin TRKB receptor binding Biological Process: circadian rhythm; axon guidance; mechanoreceptor differentiation; behavioral fear response; mitochondrial electron transport, NADH to ubiquinone; regulation of neuron differentiation; axon extension; response to hormone stimulus; positive regulation of long-term neuronal synaptic plasticity; response to vitamin A; negative regulation of neuroblast proliferation; ureteric bud development; dendrite development; regulation of retinal cell programmed cell death; feeding behavior; negative regulation of neuron apoptosis; response to electrical stimulus; negative regulation of synaptic transmission, GABAergic; inner ear development; response to food; nervous system development; chronic inflammatory response; response to light intensity; neuron recognition; learning; regulation of short-term neuronal synaptic plasticity; regulation of axon extension; negative regulation of striated muscle development; positive regulation of peptidyl-serine phosphorylation; positive regulation of synaptogenesis; axon target recognition; response to hyperoxia; glutamate secretion; response to hypoxia; response to fluoxetine; nerve development; response to activity; regulation of excitatory postsynaptic membrane potential; positive regulation of neuron differentiation; neurite morphogenesis; transmembrane receptor protein tyrosine kinase signaling pathway; gamma-aminobutyric acid signaling pathway Disease: Bulimia Nervosa, Susceptibility To, 1; Obsessive-compulsive Disorder; Bulimia Nervosa, Susceptibility To, 2; Central Hypoventilation Syndrome, Congenital

Research Articles on BDNF	**1.** Study demonstrated that increased mucosal BDNF expression was positively correlated with abdominal pain and disease severity of diarrhea-predominant irritable bowel syndrome (IBS-D). BDNF may participate in the pathogenesis of IBS-D via facilitating mucosal nerve growth and increasing visceral sensitivity in IBS-D patients.
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