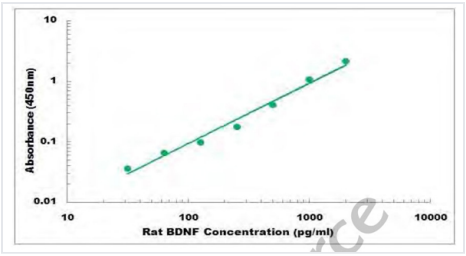
BDNF ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	BDNF, ELISA Kit
Full Product Name	Rat BDNF ELISA Kit
Product Gene Name	BDNF elisa kit
Product Synonym Names	Brain-derived neurotrophic factor; BDNF; Abrineurin
Species Reactivity	Rat
Samples	Culture Supernatants, Serum, Plasma
Sensitivity	< 2 pg/ml
Specificity	The Rat BDNF ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Rat BDNF proteins within the range of 31.2 pg/ml - 2000 pg/ml.
Preparation and Storage	Shipped and store at 4 degree C for 6 months, store at -20 degree C for one year. Avoid freeze/thaw cycles.
Molecular Weight	28,109 Da
3D Structure	ModBase 3D Structure for P23363
Applications Tested/Suitable for BDNF elisa kit	Sandwich ELISA (SE)
Related Product Information for BDNF elisa kit	Background: Brain-derived neurotrophic factor (BDNF) is a prosurvival factor induced by cortical neurons that is necessary for survival of striatal neurons in the brain. It is a secreted protein with the molecular weight of 27.8kDa, consisting of 247 amino acids. It is known to promote neuronal survival and differentiation. BDNF shares substantial amino acid sequence identity with nerve growth factor (NGF). BDNF and neurotrophin-3 (NT-3) are two recently cloned neurotrophic factors that are homologous to NGF. mRNA products of the BDNF and NT-3 genes are detected in the adult human brain, suggesting that these proteins are involved in the maintenance of the adult nervous system. BDNF and other neurotrophins are critically involved in long-term potentiation (LTP). BDNF-mediated LTP is induced postsynaptically. BDNF has trophic effects on serotonergic (5-HT) neurons in the central nervous system. BDNF has an essential maintenance function in the regulation of anxiety-related behavior and in food intake through central mediators in both the basal and fasted state. It plays a role in treating breathing disorders such as respiratory insufficiency after spinal injury. The mature form of BDNF is identical in all mammals examined, and the gene encoding human BDNF to chromosome 11, band p13. Principle of the Assay: The Rat BDNF ELISA (Enzyme-Linked Immunosorbent Assay) kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of Rat BDNF in Cell Culture Supernatants, Serum, Plasma. This assay employs an antibody specific for Rat BDNF coated on a 96-well plate. Standards and samples are pipetted into the wells and BDNF present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Rat BDNF antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of BDNF bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.
Other Notes	Small volumes of BDNF 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 BDNF purchase	MBS824814 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the BDNF, 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 BDNF. The ELISA analytical biochemical technique of the MBS824814 kit is based on BDNF antibody-BDNF antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect BDNF antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, BDNF. 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 BDNF elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	397174764
NCBI GeneID	24225
NCBI Accession #	NP_001257559.1
UniProt Primary Accession #	P23363
UniProt Secondary Accession #	Q53YL8
UniProt Related Accession #	P23363
GenBank Nucleotide #	NM_001270630.1
NCBI Official Full Name	brain-derived neurotrophic factor isoform 1
NCBI Official Synonym Full Names	brain-derived neurotrophic factor
NCBI Official Symbol	Bdnf
UniProt Protein Name	Brain-derived neurotrophic factor
Protein Family	Brain-derived neurotrophic factor
UniProt Gene Name	Bdnf
UniProt Synonym Gene Names	BDNF
UniProt Entry Name	BDNF_RAT
NCBI Protein Information	brain-derived neurotrophic factor; brain derived neurotrophic factor; brain derived neurothrophic factor
NCBI Summary for BDNF	plays a role in the development of hippocampal long term potentiation; involved in regulation of synaptic plasticity [RGD, Feb 2006]
UniProt Comments for 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 ().
Research Articles on BDNF	**1.** Elevation of brain BDNF levels evoked by physical training was dependent on exercise intensity and totally abolished by previous occlusion of a common carotid artery, at least in the cortex ipsilateral to the occlusion.

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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