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BDNF

Catalog # PVGS1436

Product Information

Primary Accession	P23560
Species	Human
Sequence	His129-Arg247
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	Immobilized Human BDNF at 5 □g/ml (100 □l/well) can bind NGF R, Human-Biotin with a linear range of 0.06-4 □g/ml.
Expression System	CHO
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	627
Other Names	Neurotrophic factor BDNF precursor form, proBDNF, Abrineurin, Brain-derived neurotrophic factor, Neurotrophic factor BDNF, BDNF {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:1033}
Target Background	BDNF, also known as brain-derived neurotrophic factor and abrineurin, is a neurotrophin belonging to the NGF-beta family. It is expressed highly in the brain, and moderately in the heart, lung, skeletal muscle and placenta. BDNF signals through its high affinity receptor gp145/trkB to exert neurotrophic properties. It has been shown to be involved in the survival and differentiation of both the central and peripheral nervous system. Specifically, BDNF regulates synaptic transmission, axonal growth and path-finding, as well as dendritic growth and morphology.

Protein Information

Name	BDNF {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:1033}
Function	Important signaling molecule that activates signaling cascades downstream of NTRK2 (PubMed:11152678). 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.
Cellular Location	Secreted
Tissue Location	Detected in blood plasma and in saliva (at protein level) (PubMed:11152678, PubMed:19467646). Brain. Highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum. Also expressed in heart, lung, skeletal muscle, testis, prostate and placenta

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.