

**BDNF**  
**Catalog # PVGS1436****Specification**

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**BDNF - Product Information**

Primary Accession [P23560](#)  
**Species**  
Human

**Sequence**  
His129-Arg247

**Purity**  
> 95% as analyzed by SDS-PAGE

**Endotoxin Level**  
< 0.2 EU/ µg of protein by gel clotting method

**Biological Activity**  
Immobilized Human BDNF at 5 µg/ml (100 µl/well) can bind NGF R, Human-Biotin with a linear range of 0.06-4 µg/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<sub>2</sub>O or PBS up to 100 µg/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.

**BDNF - 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.

## **BDNF - 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:<a href="http://www.uniprot.org/citations/11152678" target="\_blank">11152678</a>). 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

## **BDNF - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **BDNF - Images**