BioVendor Laboratory Medicine, Inc.

Human Brain derived Neurotrophic Factor (BDNF) Recombinant Protein

Product Data Sheet

Cat. No.:	RP1762070002	RP1762070010	RP1762071000
	2 µg	10 µg	1 mg

Introduction:
BDNF promotes the survival of neuronal populations that are all located either in the central nervous system or directly connected to it. 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.

Description:
Brain-Derived Neurotrophic Factor Human Recombinant produced in *E.coli* is a homodimer, non-glycosylated, polypeptide chain containing 2 x 119 amino acids and having a total molecular mass of 26,984 Dalton. BDNF Human Recombinant is purified by proprietary chromatographic techniques.

Source:
Escherichia coli.

Physical Appearance:
Sterile filtered White lyophilized (freeze-dried) powder.

Formulation:
The protein was lyophilized after dialysis against 20 mM sodium citrate buffer pH=5.

Solubility:
It is recommended to reconstitute the lyophilized BDNF in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability:
Lyophilized BDNF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN-gamma should be stored at 4°C between 2-7 days and for future use below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

Purity:
Greater than 96.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Amino acid sequence:
The sequence of the first five N-terminal amino acids was determined and was found to be Met-His-Ser-Asp-Pro.

Biological Activity:
The ED50, calculated by the dose-dependant induction of ACHE (acetylcholine esterase) in rat basal forebrain primary septal culture is 50 ng/ml.

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Protein content:

BDNF quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 1.6 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of Brain-derived Neurotrophic Factor as a Reference Standard.

Usage:

BioVendor's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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