

Datasheet

Brain-Derived Neurotrophic Factor

Human Recombinant

Product	Description	Catalogue-No.	Size
BDNF	Brain-derived neurotrophic factor, human recombinant	CB-1115000	2 µg
		CB-1115001	10 µg
		CB-1115002	1 mg

Product description

Synonyms: Brain-Derived Neurotrophic Factor, MGC34632

Brain-derived neurotrophic factor (BDNF) promotes the survival of neuronal populations that are all located either in the central nervous system or directly connected to it. BDNF is a 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, long-term depression, certain forms of short-term synaptic plasticity, as well as homeostatic regulation of intrinsic neuronal excitability. BDNF human recombinant produced in *E. coli* is a homo-dimer, 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.

Solubility and storage conditions

It is recommended to reconstitute the lyophilized BDNF in sterile distilled water not less than 100 µg/ml, which can be further diluted to other aqueous solutions. Lyophilized BDNF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution BDNF should be stored at 4° C for up to one week or 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.

Composition

Sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized without any additive. 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.
2. Analysis by RP-HPLC, using a standard solution of BDNF as a reference standard.

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

Purity: BDNF is > 97.0% as determined by:(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Biological activity: The ED50, calculated by the dose-dependent induction of ACHE (acetylcholine esterase) in rat basal forebrain primary septal culture is 50 ng/ml corresponding to a specific activity of 20,000 IU/mg.

Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

Technical Support

Additional information will be available on our website www.pan-biotech.com

For technical support or questions please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com).