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BDNF Human

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.

Synonyms: Brain-Derived Neurotrophic Factor, BDNF, MGC34632.

Source: Escherichia Coli.

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

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 greater than 97.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

Formulation:
The protein was lyophilized WITHOUT ANY ADDITIVES.

Stability:
Lyophilized BDNF althoμgh stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BDNF 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.

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

Solubility:
It is recommended to reconstitute the lyophilized BDNF in sterile 18M-cm H2O not less than 100

Introduction:
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 (ltp), long-term depression (ltd), certain forms of short-term synaptic plasticity, as well as homeostatic regulation of intrinsic neuronal excitability.

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 20,000IU/mg.

References:
Title:Generation of Dopamine Neurons with Improved Cell Survival and Phenotype Maintenance

Using a Degradation-Resistant Nurr1 MutantPublication:Article first published online: 11 JUN 2009

DOI: 10.1002/stem.146

Press.Link:http://onlinelibrary.wiley.com/doi/10.1002/stem.146/full