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BDNF Human

Brain-Derived Neurotrophic Factor Human Recombinant
NTR0005

Product Overview

Name	BDNF Human
Description	
Brain-Derived Neurotrophic Factor Human Recombinant	
Accession (Primary)	P23560
Synonyms	
Brain-Derived Neurotrophic Factor, BDNF, MGC34632.	
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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The protein was lyophilized without any additives.	
Stability	
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 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	
BDNF is greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.	
Amino acid sequence	
MHSDPARRGE LSVCDSISEW VTAADKKTAV DMSGGTVTVL EKVPVSKGQL KQYFYETKCN PMGYTKEGCR GIDKRHWNSQ CRTTQSYVRA LTMDSKKRIG WRFIRIDTSC VCTLTIKRGR.	
Biological Activity	

The ED 50 , as determined by the dose-dependent induction of C6 cells proliferation, is 1.3-2 µg/ml.

Solubility

It is recommended to reconstitute the lyophilized BDNF in sterile 18M-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

Final Thoughts Although more research is needed on the safety and effectiveness of BDNF human recombinant, trials suggest that this laboratory-produced protein may be effective in managing and treating several neurological and psychiatric disorders. It's important for experts to stay up to date on the latest developments and research to learn more about potential risks and benefits.

References

Title :Generation of Neurons with Improved Cell Survival and Phenotype Maintenance Using a Degradation-Resistant Nurr1 Mutant † ‡ Publication :Article first published online: 11 JUN 2009 DOI: 10.1002/stem.146 Copyright © 2009 AlphaMed Press. Link : BDNF prospec publication

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.

Precautions

BDNF Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P23560)

Background

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References for protein:

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Nurr1 Mutant † ‡ Publication :Article first published online: 11 JUN 2009 DOI: 10.1002/stem.146 Copyright © 2009 AlphaMed Press. Link : BDNF prospec publication