



Precursor Brain-Derived Neurotrophic Factor, human recombinant (rHuproBDNF)

Catalog No: 97558
Lot No: XXXXX
Source: *E. coli*
Synonyms: proBDNF, Precursor Form Brain-derived Neurotrophic Factor

Background

proBDNF (the precursor form of Brain-derived neurotrophic factor) interacts preferentially with p75NTR (the pan-neurotrophin receptor p75) and vps10p domain-containing receptor sortilin and induces neuronal apoptosis, while the mature BDNF selectively binds with great affinity to the TrkB kinase receptor and promotes the survival, growth and differentiation of neurons. Since proneurotrophins and mature neurotrophins bring forth opposite biological effects, proBDNF cleavage in the neuronal system is regulated in a specific and cell-context dependent manner. proBDNF has an important role in negative regulation of neurotrophic actions in the brain.

Description

proBDNF human recombinant produced in *E. coli* is a single, non-glycosylated, non-covalently linked homodimer with each polypeptide chain containing 229 amino acids and having a molecular mass of 52 kDa. proBDNF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

proBDNF was lyophilized from a concentrated (0.5 mg/ml) solution in 20 mM PB, pH 8.0 and 500 mM NaCl.

Solubility

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

Stability

Lyophilized proBDNF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution proBDNF should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% 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-Ala-Pro-Met-Lys.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.

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