

## Certificate of Analysis

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**Product Name:** BDNF (human)

**Catalog No.:** 2837

**Batch No.:** 10

CAS Number: 218441-99-7

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Weight:** 26984  
**Physical Appearance:** White lyophilised solid  
**Solubility:** Soluble in water  
**Storage:** Store at -20°C

### 2. ANALYTICAL DATA

**HPLC:** Shows >97% purity  
**UV spectrum:** Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Recombinant protein produced in E.coli. Homodimeric and nonglycosylated polypeptide chain containing 2 x 119 amino acids with a total molecular weight of 26,984 Dalton. Member of the neurotrophin growth factor family that binds and activates TrkB and p75 neurotrophin receptors. Enhances the survival, growth and differentiation of neurons. BDNF expression is altered in neurodegenerative disorders such as Parkinson's and Alzheimer's disease.

**Physical and Chemical Properties:**

Batch Molecular Weight: 26984

Physical Appearance: White lyophilised solid

**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble in water

Solutions should be made by reconstituting the lyophilised protein in sterile, deionised water at not less than 100µg/ml. This can then be further diluted with other aqueous solutions. We recommend that stock solutions, once prepared, are stored at 4° C. Generally, this solution will be useable for between 2-7 days. For long term storage we recommend that a carrier protein (0.1% HSA or BSA) is added to the stock solution, which should then be aliquoted out and stored at -20°C for one month. Avoid freeze-thaw cycles.

The protein was lyophilised after dialysis against 20mM sodium citrate buffer pH = 5.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

**References:**

**Lipsky and Marini** (2007) Brain-derived neurotrophic factor in neuronal survival and behavior-related plasticity. *Ann.N.Y.Acad.Sci.* **1122** 130. PMID: 18077569.

**Evans and Barker** (2008) Neurotrophic factors as a therapeutic target for Parkinson's disease. *Expert Opin.Ther.Targets* **12** 437. PMID: 18348680.

**Wang et al** (2008) The when and where of BDNF and the antidepressant response. *Biol.Psychiat.* **63** 640.

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