

Datasheet for ABIN6699554

**BDNF Protein****1** Image**1** Publication[Go to Product page](#)

## Overview

Quantity:	10 µg
Target:	BDNF
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	SDS-PAGE (SDS)

## Product Details

Purpose:	BDNF Human Recombinant Protein
Purification:	Purity was determined to be greater than 97% as determined by analysis by RP-HPLC and by reducing and non-reducing SDS-PAGE against a known standard. Endotoxin level as determined by kinetic LAL analysis: 0.05 EUs/µg protein.
Purity:	97,00%
Endotoxin Level:	Measured by LAL is < 0.01 ng/µg or < 0.1 EU/µg protein.
Biological Activity Comment:	Proliferation of a neuroblastoma cell line stably expressing TrkB (BR6) ED50 ≤ 40 ng/mL (≥ 2.5 x 10 <sup>4</sup> units/mg).

## Target Details

Target:	BDNF
Alternative Name:	BDNF ( <a href="#">BDNF Products</a> )
Background:	Synonyms: Brain-derived neurotrophic factor, Abrineurin cytokine

## Target Details

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Background: BDNF is a member of the nerve growth factor family of trophic factors. In the brain BDNF has a trophic action on retinal, cholinergic, and dopaminergic neurons, and in the peripheral nervous system it acts on both motor and sensory neurons. Some protein domains of BDNF are identical with those of NGF and another neurotrophic factor, designated NT-3 (neurotrophin-3). It exists as monomers and homodimers, and binds to NTRK2/TRKB.

Polyclonal antibodies raised against murine NGF have been shown to cross-react with both NT-3 and BDNF. The propeptide is N-glycosylated and glycosulfated. BDNF is converted into mature BDNF by plasmin (PLG). It is expressed in brain, and highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum, it is also expressed in heart, lung, skeletal muscle, testis, prostate and placenta. Recombinant Human Brain-Derived Neurotrophic Factor 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 Daltons.

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UniProt: [P23560](#)

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Pathways: [RTK Signaling](#), [Synaptic Membrane](#), [Feeding Behaviour](#), [Dicarboxylic Acid Transport](#), [Regulation of long-term Neuronal Synaptic Plasticity](#)

## Application Details

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Application Notes: BDNF has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-BDNF in immunological assays.

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Comment: Suggested\_Applications: Other  
Other\_Performance\_Data:

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Restrictions: For Research Use only

## Handling

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Format: Lyophilized

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Reconstitution: Reconstitution\_Buffer: Restore with deionized water (or equivalent)  
Reconstitution\_Volume: 10 µL (10-100 µL)

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Concentration: 0.1 mg/mL

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Buffer: Buffer: 0.1 % Trifluoroacetic acid  
Stabilizer: None

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Preservative: Without preservative

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Storage: -20 °C

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## Handling

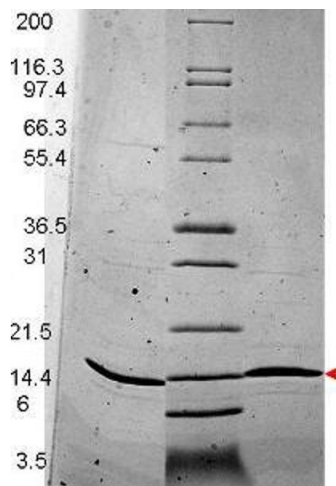
Storage Comment: Store vial at -20° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL) . For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.

Expiry Date: 6 months

## Publications

Product cited in: Chowdhury, Collins, Gell, Perry, Breadmore, Shigdar, King: "Isolation and Identification of the High-Affinity DNA Aptamer Target to the Brain-Derived Neurotrophic Factor (BDNF)." in: **ACS chemical neuroscience**, Vol. 15, Issue 2, pp. 346-356, (2024) ([PubMed](#)).

## Images



### SDS-PAGE

**Image 1.** BDNF Human Recombinant Protein - SDS-PAGE. SDS-PAGE shows band corresponding to BDNF (1 $\mu$ g) in lane 1 (unreduced) and lane 3 (reduced, arrowhead). Molecular weight estimation was made by comparison to prestained MW markers, lane 2.