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Datasheet for 009-001-C27

BDNF Human Recombinant Protein

Overview

Description:	BDNF Human Recombinant Protein - 009-001-C27
Item No.:	009-001-C27
Size:	10 µg
Applications:	SDS-PAGE, Other
Origin:	Human
Expressed in:	E. coli

Product Details

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.
Synonyms:	Brain-derived neurotrophic factor, Abrineurin cytokine
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	BDNF

Purity/Specificity:	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.
Relevant Links:	• UniProtKB - P23560 • NCBI - 3YAWJEK2011

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Other (Based on references)
Application Note:	BDNF has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-BDNF in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Biological Activity: Proliferation of a neuroblastoma cell line stably expressing TrkB (BR6) ED50 ≤ 40 ng/mL (≥ 2.5 x 10^4 units/mg). Endotoxin Level: Measured by LAL is <0.01ng/µg or <0.1EU/µg.

Formulation

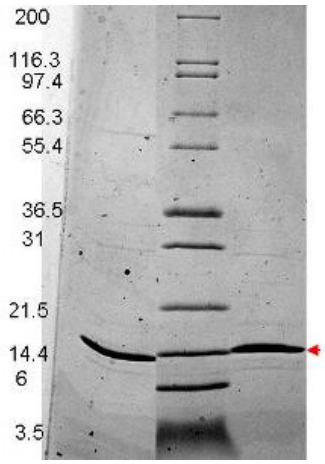
Physical State:	Lyophilized
Concentration:	0.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	10µl (10-100µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient

Storage Condition:	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.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE
SDS-PAGE shows band corresponding to BDNF (1µg) in lane 1 (unreduced) and lane 3 (reduced, arrowhead). Molecular weight estimation was made by comparison to prestained MW markers, lane 2.

References

- Chowdhury MA et al. Isolation and Identification of the High-Affinity DNA Aptamer Target to the Brain-Derived Neurotrophic Factor (BDNF). *ACS Chem Neurosci,*. (2024)

Disclaimer

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