

Mouse / Human / Rat / Cynomolgus / Canine BDNF Protein

Catalog Number: 50240-MNAS



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ANON2; BULN2

Protein Construction:

A DNA sequence encoding the mouse BDNF (P21237) (Met1-Arg249) was expressed and its mature form was purified. The mature form of human, mouse, rat, cynomolgus and canine BDNF sequences are identical.

Source: Mouse

Expression Host: CHO Stable Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its ability to bind biotinylated human TrkB-His (Cat:10047-H08H) in functional ELISA. 2. Measured by its ability to bind Human TrkB-Fch (Cat:10047-H03H) in functional ELISA. 3. Measured by its ability to bind biotinylated mouse TrkB-His (Cat:50132-M08H) in functional ELISA.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His 131

Molecular Mass:

The recombinant mature form of mouse BDNF consists of 119 amino acids and predicts a molecular mass of 13.5 KDa.

Formulation:

Lyophilized from sterile PBS

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

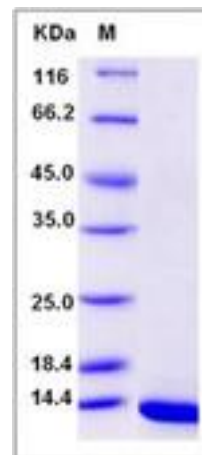
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

BDNF is a member of the [nerve growth factor](#) family. It is highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum. It also can be detected in heart, lung, skeletal muscle, testis, prostate and placenta. BDNF is induced by cortical neurons, and is necessary for survival of striatal neurons in the brain. During development, BDNF promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systems. It participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. It functions as the 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.

References

1. Zigova T, *et al.* (1998) Intraventricular administration of BDNF increases the number of newly generated neurons in the adult olfactory bulb. *Mol Cell Neurosci.* 11(4):234-45.
2. Acheson A, *et al.* (1995) A BDNF autocrine loop in adult sensory neurons prevents cell death. *Nature* 374(6521):450-3.
3. Bekinschtein P, *et al.* (2008) BDNF is essential to promote persistence of long-term memory storage. *Proc Natl Acad Sci.* 105(7):2711-6.

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