

Recombinant Bovine Brain-derived Neurotrophic Factor (BDNF)

Cat. No.: AP2F247

Product Type: Animal Proteins

Size: 50 µg

Product Overview

BioVenic's Recombinant Bovine Brain-derived Neurotrophic Factor (BDNF) is a recombinant protein expressed from E. coli expression system. Its predicted molecular weight is 13 kDa. The purity is greater than 95% (SDS-PAGE). The endotoxin level is <0.01 EU/µg (LAL).

Specifications

Type	Recombinant Protein
Species	Bovine
Expression System	E.coli Expression System
Purity	>95% (SDS-PAGE)
Endotoxin	<0.01 EU/µg (LAL)
Predicted Molecular Weight	13 kDa
Molecular Weight	14 kDa (reducing conditions)
Physical State	Lyophilized

Target Information

Brain-Derived Neurotrophic Factor (BDNF) is a member of the neurotrophin family. BDNF promotes the survival, growth, and differentiation of neurons, BDNF is a significant regulator of synaptic transmission and plasticity at adult synapses in various regions of the CNS. The presence of BDNF in the brain and peripheral tissues makes it an interesting candidate as a biomarker for evaluating animal welfare. A study conducted on cattle models has provided a comprehensive understanding of the involvement of the BDNF and kynurenine pathway in chronic stress induced by tie-stall housing. The study suggests that these systems may have a role in modulating emotional states in dairy cows.

Protein	Bovine Brain-derived Neurotrophic Factor (BDNF)
Protein Synonym	Brain-Derived Neurotrophic Factor; BDNF; Abrineurin
Gene ID	617701
UniProt ID	Q95106

Shipping and Storage

This product is shipped with dry ice. It is recommended to aliquote as needed and store at -20°C upon receipt. Reconstituted protein solution can be stored at 4°C for 1 week, at < -20°C for 3 months.

User Note

Always centrifuge tubes before opening. Dissolve the lyophilized protein in distilled water. Avoid mixing by vortexing or pipetting. It is not recommended to reconstitute to a concentration < 100 µg/mL. Aliquote the reconstituted solution to minimise freeze-thaw cycles.

Reference

Favole, A. *et al.* Brain-Derived Neurotrophic Factor, Kynurenine Pathway, and Lipid-Profiling Alterations as Potential Animal Welfare Indicators in Dairy Cattle. *Animals : an open access journal from MDPI*. 2023, 13.

The product is for research use only. Not for commercial, prophylactic, diagnostic, or therapeutic applications. Please determine the purpose of the product before purchasing. For further information and inquiry, please contact us.