

Active Recombinant Mouse BDNF protein, His-tagged

Cat. No. BDNF-9843M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mouse BDNF (EDL27780.1, with mutation Arg 129 Ala, Arg 130 Ala) (Met1-Arg249) was expressed with a polyhistidine tag at the C-terminus.
Species	Mouse
Source	HEK293
ProteinLength	Met1-Arg249
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.
Predicted N Terminal	Ala 19

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Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Bio-activity	Testing in progress
Molecular Mass	The recombinant mouse BDNF consists of 242 amino acids and predicts a molecular mass of 27.4 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95% as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -20°C to -80°C
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.25 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	Bdnf brain derived neurotrophic factor [Mus musculus (house mouse)]
Official Symbol	BDNF

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Synonyms	BDNF
Gene ID	12064
mRNA Refseq	NM_001048139.1
Protein Refseq	NP_001041604.1
UniProt ID	P21237

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