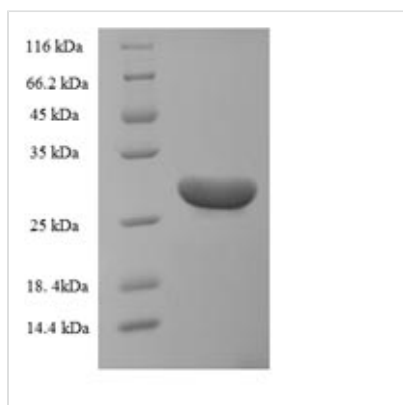




Recombinant Human Brain-derived neurotrophic factor (BDNF)

Product Code	CSB-EP002655HU
Relevance	During development, promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systems. Participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. 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.
Abbreviation	Recombinant Human BDNF protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P23560
Alias	Abrineurin
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	HSDPARRGELSVCDSEWVTAADKKTAVDMSGGTVTVLEKVPVSKGQLKQY FYETKCNPMGYTKEGCRGIDKRHWNSQCRTTQSYVRALTMDSKKRIGWRFIR IDTSCVCTLTIKRGR
Research Area	Neuroscience
Source	E.coli
Target Names	BDNF
Protein Names	Recommended name: Brain-derived neurotrophic factor Short name= BDNF Alternative name(s): Abrineurin
Expression Region	129-247aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	29.5kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The process of expressing the recombinant human BDNF protein in the E.coli requires the recombinant DNA gene formed by the integration of encoding gene for the 129-247aa of the human BDNF protein and N-terminal 6xHis-SUMO tag sequence, the expression vector that the recombinant DNA gene inserts into, the E.coli that provided the necessary macromolecules and components for transcription and translation of the cloned expression vector. After isolation and purification, this N-terminal 6xHis-SUMO-tagged recombinant BDNF protein was obtained. This recombinant BDNF protein is characterized by high purity (>90%, SDS-PAGE). This BDNF protein ran along the gel to the band of approximately 30 kDa molecular weight.

BDNF is a gene providing instruction of making a protein named brain-derived neurotrophic factor (also abbreviated as BDNF) in human and belongs to NGF-beta family. BDNF has a wide array of functions within the brain, involving supporting differentiation, maturation, and survival of neurons in the nervous system. It is highly abundant in the CNS, gut and other tissues. The levels of BDNF are decreased in many neurodegenerative diseases such as Parkinson's disease (PD), multiple sclerosis (MS) and Huntington's disease.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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