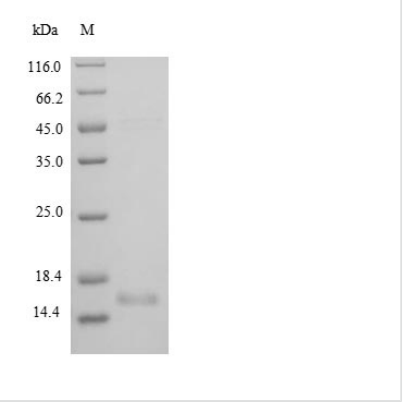
Recombinant Rat Brain-derived neurotrophic factor (Bdnf), partial

Product Code	CSB-RP166394r
Relevance	During development, promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systs. 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 .
Abbreviation	Recombinant Rat Bdnf protein, partial
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.	P23363
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	RRGELSVCDSISEWVTAADKKTAVDMSGGTVTVLEKVPVSKGQLKQYFYETK CNPMGYTKEGCRGIDKRHWNSQCRTTQSYVRALTMDSKKRIGWRFIRIDTSC VCTL
Research Area	Others
Source	E.coli
Target Names	Bdnf
Expression Region	136-243aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	16.3kDa
Protein Length	Partial
Image	



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

Description

Amino acids 136-243 form the expressed segment for recombinant Rat Bdnf. This Bdnf protein is expected to have a theoretical molecular weight of 16.3 kDa. This Bdnf recombinant protein is manufactured in e.coli. The N-terminal 6xHis tag was fused into the coding gene segment of Bdnf, making it easier to detect and purify the Bdnf recombinant protein in the later stages of expression and purification.

The rat brain-derived neurotrophic factor (BDNF), a member of the neurotrophin family, is crucial for the development, survival, and function of neurons in the nervous system. BDNF is widely expressed in the brain and peripheral tissues, influencing neuronal processes such as synaptic plasticity, neurogenesis, and cell survival. BDNF binds to its receptor, TrkB, initiating intracellular signaling pathways that impact neuronal growth and function. Research on rat BDNF is extensive and encompasses neurodevelopmental processes, learning and memory, and its involvement in various neurological disorders. Understanding BDNF's role provides insights into the molecular mechanisms underlying neural function and potential therapeutic strategies for neurodegenerative conditions.

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

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.